

Τεχνολογικό Εκπαιδευτικό Ίδρυμα Κρήτης
Σχολή Τεχνολογικών Εφαρμογών
Τμήμα Εφαρμοσμένης Πληροφορικής & Πολυμέσων



ΠΤΥΧΙΑΚΗ ΕΡΓΑΣΙΑ

ΘΕΜΑ

**<<Σύστημα για διαχείριση λογαριασμών και καρτών
(ηλεκτρονικών και πιστωτικών) μιας τράπεζας και συστήματα
ανάκτησης από λάθη>>**

Πετρίδης Δημήτριος (ΑΜ: 2528)

Αγγελάκης Μανόλης (ΑΜ:2440)

Επιβλέπων καθηγητής: Παπαδάκης Νικόλαος

μ μ μ

μ μ μ .

μ μ μ

μ μ . μ

μ μ .

μ μ μ . μ

().

μ μ HTML, PHP Visual

Basic μ μ SQL

μ . μ

μ μ

μ . μ

μ : Xampp Server, Visual Studio Mozilla Firefox.

Abstract

The purpose of this thesis is to create a dynamic web application for the operation and management of bank accounts. The application manages to ease the process of creating a bank account and shutting down. We are also very easy to open and a new credit card or ilktroniki. As well as making moves to accounts confirmation. Balance application is for multiple users (customers and managers).

The main technologies used are HTML, the PHP and Visual Basic for the development of our application and SQL for database management. Also for the implementation of this embodiment used various software which combined to achieve the final effect. This software is free for use by the general public and very easily online. The software is: Xampp Server, Visual Studio and Mozilla Firefox.

Πίνακας περιεχομένων

Σύνοψη	3
Abstract	4
1. Εισαγωγή	8
1.1. Σκοπός Εφαρμογής	8
2. Βάσεις Δεδομένων και Internet	9
2.1. CGI (common gateway interface)	10
2.2. ISAPI (Internet Server Application Interface).....	10
3. Τεχνολογίες για ανάπτυξη δυναμικών WEB συστημάτων.....	11
3.1. HTML	11
3.2. Java.....	13
3.3. Javascript.....	15
3.4. PHP	16
3.5. Perl	17
3.6. MySQL	19
3.7. ASP Pages.....	20
3.8. Τα εσωτερικά αντικείμενα ASP	24
4. Εγκατάσταση XAMPP Server για δημιουργία της Βάσης Δεδομένων.	27
ΔΙΑΓΡΑΜΜΑ ΟΝΤΟΤΗΤΩΝ ΣΥΣΧΕΤΙΣΕΩΝ(1)	31
ΔΙΑΓΡΑΜΜΑ ΟΝΤΟΤΗΤΩΝ ΣΥΣΧΕΤΙΣΕΩΝ(2)	32
5. ΣΥΝΑΡΤΗΣΙΑΚΕΣ ΕΞΑΡΤΗΣΕΙΣ.....	33
6. Δημιουργία Σχεσιακού Μοντέλου	34
6.1.Δημιουργία ΒΔ bankdb.	34
6.2.Δημιουργία πινάκων της ΒΔ bankdb.....	35
6.3.Μετάφραση του Σχεσιακού μοντέλου της ΒΔ της Τράπεζας.....	41
6.4.Κανονικοποίηση και κλειδιά πινάκων	42
7.Δημιουργία Web Banking	42
7.1.Εγγραφή χρήστη:.....	43
7.2.Σύνδεση Χρήστη	45
7.3.Αποσύνδεση Χρήστη:	46
7.4.Μη επιτυχή σύνδεση Χρήστη:.....	46
7.5.Πλοήγηση στον Πίνακα Διαχείρισης Τραπεζικών Λογαριασμών	47

7.6.Μεταφορά – Κατάθεση σε Λογαριασμό.....	49
7.7.Δημιουργία Κάρτας.....	51
7.8.Κλείσιμο Κάρτας.....	52
7.9.Ανάληψη Από Ηλεκτρονική Κάρτα.....	52
7.10.Ανάληψη από Πιστωτική Κάρτα.....	54
7.11.Σύνδεση Διαχειριστή.....	55
8. Τεχνικές ανάκτηση της βάσης δεδομένων.....	56
9. Παράρτημα.....	57
Κώδικας Αρχικής Οθόνης – Default.aspx.....	57
Κώδικας Αρχικής Οθόνης – Default.vb.....	58
Κώδικας Σελίδας μεταφοράς χρημάτων - PageAccountTransfer.aspx.....	59
Κώδικας μεταφοράς χρημάτων - PageAccountTransfer.aspx.vb.....	62
Κώδικας Σελίδας επεξεργασίας επιτοκίου – PageAdminEditCard.aspx.....	65
Κώδικας επεξεργασίας επιτοκίου – PageAdminEditCard.aspx.vb.....	66
Κώδικας σελίδας διαχειριστή για αναζήτηση κάρτας προς αλλαγή επιτοκίου – PageAdminSearchCard.aspx.....	68
Κώδικας διαχειριστή για αναζήτηση κάρτας προς αλλαγή επιτοκίου – PageAdminSearchCard.aspx.vb.....	69
Κώδικας σελίδας για δημιουργία Νέας Κάρτας - PageCreateNewCard.aspx.....	69
Κώδικας για δημιουργία Νέας Κάρτας - PageCreateNewCard.aspx.....	70
Κώδικας σελίδας για ανάληψη από ηλεκτρονική κάρτα – PageCreditCardWithdraw.aspx.....	71
Κώδικας για ανάληψη από ηλεκτρονική κάρτα – PageCreditCardWithdraw.aspx.vb.....	71
Κεντρική σελίδα Χρήστη - PageCustomerDashboard.aspx.....	74
Κεντρική σελίδα Χρήστη - PageCustomerDashboard.aspx.vb.....	75
Κώδικας σελίδας εγγραφής χρήστη - PageCustomerRegister.aspx.....	79
Κώδικας εγγραφής χρήστη - PageCustomerRegister.aspx.vb.....	80
Κώδικας σελίδας για ανάληψη από Πιστωτική κάρτα - PageDebidCardWithdraw.aspx... 81	
Κώδικας για ανάληψη από Πιστωτική κάρτα - PageDebidCardWithdraw.aspx.vb.....	82
Κώδικας Σελίδας Διαγραφής Λογαριασμού - PageDeleteAccount.aspx.....	84
Κώδικας Διαγραφής Λογαριασμού - PageDeleteAccount.aspx.vb.....	85
Κώδικας σελίδας διαγραφής κάρτας - PageDeleteCard.aspx.....	87
Κώδικας διαγραφής κάρτας - PageDeleteCard.aspx.vb.....	87
Κώδικας επιτυχούς δημιουργίας χρήστη - PageSuccessfulNewCustomer.apxs.....	89

Κώδικας δημιουργίας χρήστη - PageSuccesfullNewCustomer.aspx.vb	90
10. Αποτελέσματα – Συμπεράσματα	91
Βιβλιογραφία:	94

1. _____

web μ μ μ
μ web μ μ
μ web browser μ
HTTP μ HTML. Ο server
μ μ browser μ μ
μ url μ μ
μ μ μ μ μ
server μ μ μ μ μ
μ μ μ μ web μ
μ μ servers
μ μ μ μ web μ
servers μ μ

1.1. Σκοπός Εφαρμογής

μ
μ PHP, HTML, Visual Basic
μ

μ , μ μ online -
μ . μ
μ , μ μ
μ () μ

2. μ Internet

μ μ μ
μ (. .).
μ μ μ μ

μ : μ
• μ μ
• μ
• μ μ
μ μ μ μ μ μ
μ , μ “ μ
μ ” (DBMS).

μ μ μ μ :
• μ μ ,
• μ μ μ μ μ
μ μ μ μ
• μ μ μ
• μ μ μ

μ μ μ μ .
μ μ μ μ μ μ μ μ web
μ .

μ
 μ web μ
 μ client server.

2.1. CGI (common gateway interface)

To Common Gateway Interface(cgi)

μ browser server μ
 μ (gateway) HTTP-
 Server μ
 . gateway SQL- Server μ
 μ μ
 μ μ cgi
 (Lycos, Yahoo, Altvista)
 gateway μ
 μ .
 μ cgi μ μ .
 μ μ μ μ μ
 μ μ
 μ μ μ μ
 . μ μ
 , μ cgi, μ μ 50 100,
 μ
 100 .
 μ μ cgi
 μ μ server
 exe μ μ
 server.

2.2. ISAPI (Internet Server Application Interface)

μ cgi μ
 ISAPI (Internet Server Application Interface).
 ISAPI cgi μμ

dll(Dynamic Link Library)

server

μ μ
μ . μ

cgi.

ISAPI

μ μ μ

μ

μ

μ

μ

web

dll

μμ

μ

μ

server

μμ

μμ

C++ , Visual Basic,Perl

internet.

μ

μ

μ

server μ

μ

μ

μ

μ

μ

μ

μ

μ

μ

μ

μ

μ

.

μ

μ

active server pages.

μ

asp.net pages

μ

μ

μ

μ

μ

μ

.

3.

μ

WEB

μ

3.1. HTML

HTML

μ

Hypertext Markup Language.

HTML

WWW

. Web sites

web

μμ

HTML.

HTML

WWW μ

μ ,

,

links

.

HTML

μ

μ

.

Hypertext Markup Language

WWW

, μ (Hyper).
 μ μ μ μ μ μ (Text)
 μ μ WWW (markup). HTML
 μ μ μ μ
 , notepad WordPad
 μ . μ μ μ browser
 μ μ μ .
 HTML μ μ HTML
 μ μ . (labels)
 μ μ μ browser.
 μ μ μ μ
 browser μ μ
 μ μ .
 , HTML μ μ μ
 μ μ , background, ,
 μ μ interface.
 μ HTML :

```

<html>
  <head>
    <title> </title>
    <meta .....>
  </head>
  <body>
    μ .
  </body>
</html>

```

<HTML>

HTML

μ

μ browser

μ

μ HTML

```

<HEAD>
<TITLE>
browser.
<HEAD>,
<BODY>
HTML
μ μ μ
μ μ μ
μ μ
javascripts, frames,
. . [2]

```

3.2. Java

1991, Sun
 ()
 C++ C.
 Java, James Gosling, Sun,
 C++
 (C++ ++)
 Sun. Oak. Gosling
 Java
 Windows, Linux, Unix Macintosh (Playstation
 (compiling)
 .

μ « »
 . μ μ μ μ μ
 μ μμ .
 Java μμ
 , μ build
 Apache Ant ,
 μ (the GNU
 Compiler for Java) Java.
 Java μ Apache
 Software Foundation Jakarta Project
 Java
 μ , μ μ (Notepad) Windows
 vi (Unix). ' ' , μ
 (IDE) , μ μ
 (debugging). [1]

3.3. Javascript

JAVASCRIPT μ μμ μ ,
 Netscape Communications Corporation
 Netscape Navigator web browser. μ
 , μ .
 μ μ μ .
 μ client side JavaScript , μ
 μ web browser μ μ
 (DOM). μ μ
 μ html μ μ
 . server side JavaScript μ
 μ
 JavaScript server.
 JavaScript μ μ - ,
 client browser server μ
 server. μ JavaScript μ μ μ μ

μ μ .

Larry Wall

GPL.

μ 1987 2010

5.10.1.[12]

μ μ Perl μ μ ,
 μ μ μ μ μ μ
 . Perl μ μ ()
 μ . , μ μ μ (arrays)
 (associative arrays hash tables),
 μ μ μ . μ
 μ μ μ μ μ μ , ,
 . . μ μ
 μ μ μ .

μ μ μ Perl μ μ
 μ μ μ μ μ μ
 μ μ μ μ μ μ
 Perl μ μ .

, μ
 μ μ μ μ
 μ μ μ .
 μ μ μ , μ μ μ
 « » μ (tokens).

Perl μ μ
 μ μ . Perl μ

μ 1. μ
 μ
 Java Scala.
 Perl μ
 μ μ μ fork.
 μ μ μ . μ
 μ μ ,
 μ .
 , Perl μ
 μ CGI scripts.[11]
 Perl μ μ
 μ . μ μ ,
 μ , . .

3.6. MySQL

Η MySQL μ μ (Open Source SQL) ,
 MySQL AB. MySQL AB μ μ
 MySQL
 .
 MySQL μ μ μ
 μ . μ , μ
 μ μ
 . ,
 μ μ μ
 , μ MySQL.
 μ /
 μ ,
 μ , μ μ
 μ .

MySQL μ .

μ μ .

μ μ μ μ μ μ . SQL

μ (“Structured Query Language”), μ

μ μ .

MySQL Open Source software. Open Source μ

μ MySQL .

μ μ

μ MySQL μ GPL (GNU General Public License), μ

software μ μ

GPL MySQL μ μ μ

MySQL AB μ μ .

μ MySQL :

- MySQL , μ .
- MySQL μ μ μ . MySQL μ μ .

μ μ , MySQL μ μ

- μ , MySQL μ . [5]

3.7. ASP Pages

active server pages(asp) μ μ

Active-Plattform, μ Microsoft

internet. Active-Plattform μ

μ μ μ
μ client (Active-Desktop)
server (Active-Server).

asp web-server, Internet
Information Server(IIS) Windows NT Personal Web Server
Windows 95 , μ μ .asp
.asp clients.

M μ μ asp μ scripting,
μ Internet/Internet
HTML , VBScript Javascript,
ActiveXComponents μ asp.

μ μ μ μ μ μ
asp server μ μ
μ client.

μ μ
asp.

- sp μ
- sp μ
- sp
- sp μ idc(internet
database connector),cgi,ActiveX

➤ Asp μ
asp μ (compiler),
, μ μ
server μ μ server.
μ .asp μ dll(dynamic link library)
μ .

μ asp μ
, asp, μ
server.

➤ Asp μ

asp μ μ μ μ
μ .
μ . ,
μ asp μ μ notepad,
μ .
μ microsoft μ
μ visual interdev.

➤ Asp

μ μ , μ , script
Javascript Vbscript μ
μ μ HTML client
browser.

μ μ μ μ
μ web μ source-code
asp μ
server μ script.

➤ Asp

μ μ asp μ
μ . μ
μ .
μ μ asp μ μ script.
μ script μ
μ

server asp μ ,
μ μ μ .

μ
client-server , μ ,
μ server Server-client
μ μ μ μ .

➤ asp

μ μ asp :

- HTML
- script(Javascript,VBscript)
- ActiveX-Components
- μ script : <% %>
- μ asp

μ μ μ μ web μ
asp μ μ script <% %> . μ μ
μ μ
μ asp javascript, perl vbscript .
μ script μ μ μ
μμ :

<% @ LANGUAGE=Javascript %>

μ μ μ
Javascript.

μ -
script .

μ asp ASP-interpreter ASP-parser
μ μ HTML

3.8. Τα εσωτερικά αντικείμενα ASP

Το αντικείμενο `Request` παρέχει πληροφορίες σχετικά με το browser που χρησιμοποιείται για την πρόσβαση στην ιστοσελίδα, καθώς και πληροφορίες σχετικά με το http-headers που αποστέλλονται από τον browser.

- `Response`
- `Request`
- `Session`
- `Application`

➤ Αντικείμενο `Request`

Το αντικείμενο `Request` παρέχει πληροφορίες σχετικά με το browser που χρησιμοποιείται για την πρόσβαση στην ιστοσελίδα, καθώς και πληροφορίες σχετικά με το http-headers που αποστέλλονται από τον browser. Οι πληροφορίες αυτές είναι διαθέσιμες μέσω των ιδιοτήτων `Request`, όπως `Request.Cookies`, `Request.Form`, `Request.Headers`, `Request.QueryString`, `Request.ServerVariables`.

Παράδειγμα: Ανάκτηση της τιμής της παραμέτρου « Quantity » από το http-headers.

```

<% Request.Cookies["Quantity"] %>

```

`<% Request.Form("Quantity") %>`

Αντίστοιχα, για να ανακτήσουμε την τιμή της παραμέτρου « Quantity » από το http-headers, μπορούμε να χρησιμοποιήσουμε το αντικείμενο `Request` με την ιδιότητα `Form`.

`Request.QueryString` :

`<% Request.QueryString("Quantity") %>`

Το αντικείμενο `Request` παρέχει επίσης πληροφορίες σχετικά με το http-headers που αποστέλλονται από τον browser. Οι πληροφορίες αυτές είναι διαθέσιμες μέσω των ιδιοτήτων `Request`, όπως `Request.Cookies`, `Request.Form`, `Request.Headers`, `Request.QueryString`, `Request.ServerVariables`.


```

        μ      μ      post μ
    body      http      .
        μ      μ
    Cookies.  cookies  μ
    μ      ,      ,      browser  server.
        cookies
    client      server      μ μ      http-
    browser.      μ
        μ      .
    μ
    <% Request.Cookie("Cookiename") %>
    μ      μ      μ      cookie
    .
    ➤      μ      Response
    μ      μ      Request, μ      μ      μ
    client-browser,      μ      Response      μ      μ
    Server      μ      Server.
    μ μ      μ      μ      μ
    μ      write      μ      redirect.
    Η write      μ      .
    <% Response.write("Hello world") %>

    <%
    variable=Hello world
    Response.write(variable)
    %>

```

```

    μ      redirect      μ      μ      browser      μ
          path          μ      .
          μ      μ      request.cookie(cookieName)
μ      μ      μ      μ      .
μ      μ      cookie;
          μ      μ      μ      μ      cookie      :
<% Response.Cookies(cookieName) = cookieValue %>

```

➤ μ Session Application

```

          μ      μ      http
          μ      browser      server
          μ      μ      μ      .
          μ      μ      μ
sites.
          μ      ,
          ,      cookies.      cookies      μ      μ      μ
          client      μ
          μ      .
          asp      μ      μ      μ
Session      Application.      μ      μ
          .
          μ      μ      μ      session
          μ      clients      μ      .      μ
          μ      μ      server.
          μ      application      μ
          μ      .
μ      lock      unlock      μ      μ      μ
          μ      . [6] – [7] – [8]

```

4. XAMPP Server

μ .

μ () μ

μ μ μ μ

μ μ μ μ μ μ

μ μ web. μ μ

μ μ μ μ μ

μ . μ XAMPP Server,

μμ μ SQL μ

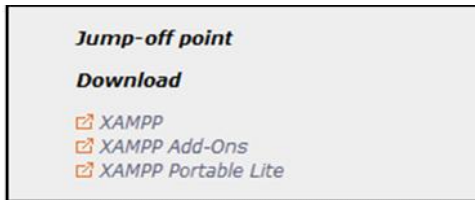
Server μ μ μ μ .

XAMPP Server μ μ μ

Link <http://www.apachefriends.org/en/xampp-windows.html>

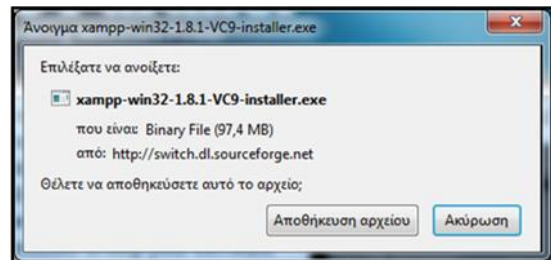
Windows. [9]

μ Download XAMPP.



μ Installer μ

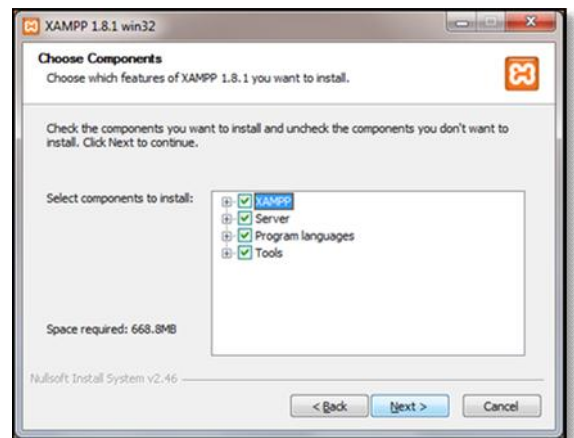
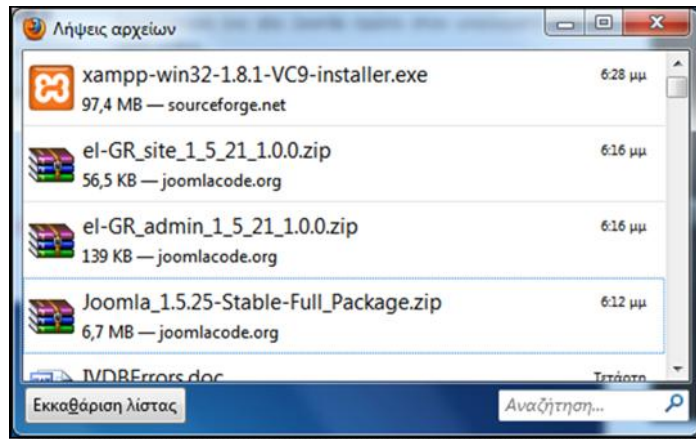
Version	Size	Content
XAMPP for Windows 1.8.1, 30.9.2012		
XAMPP Windows 1.8.1		Apache 2.4.2, MySQL 5.5.27, PHP 5.4.7, OpenSSL 1.0.1c, phpMyAdmin 3.5.2.2, XAMPP Control Panel 3.1.0, Webalizer 2.23-04, Mercury Mail Transport System v4.62, FileZilla FTP Server 0.9.41, Tomcat 7.0.30 (with mod_proxy_ajp as connector), Strawberry Perl 5.16.0.1 Portable For Windows 2000, XP, Vista, 7.
📄 Installer	99 MB	Installer MD5 checksum: 2c067c31725fda3c71c6d43483b4df4c
📄 ZIP	184 MB	ZIP archive MD5 checksum: 924e9cdc0fc49984e0c4916aa8f31c18
📄 7zip	84 MB	7zip archive MD5 checksum: 462f6bc3c9e96a8c9228927ff8e0d217

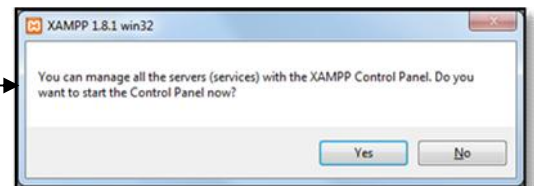
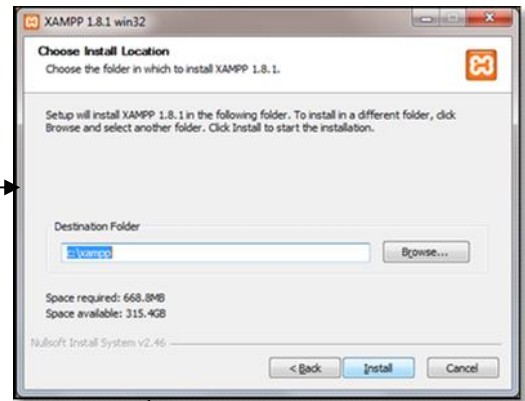
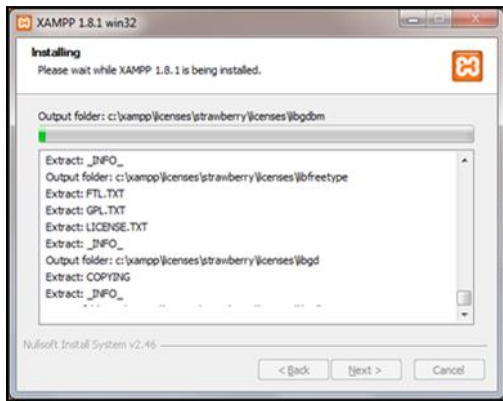


μ XAMPP server. μ

μ Skype

antivirus.

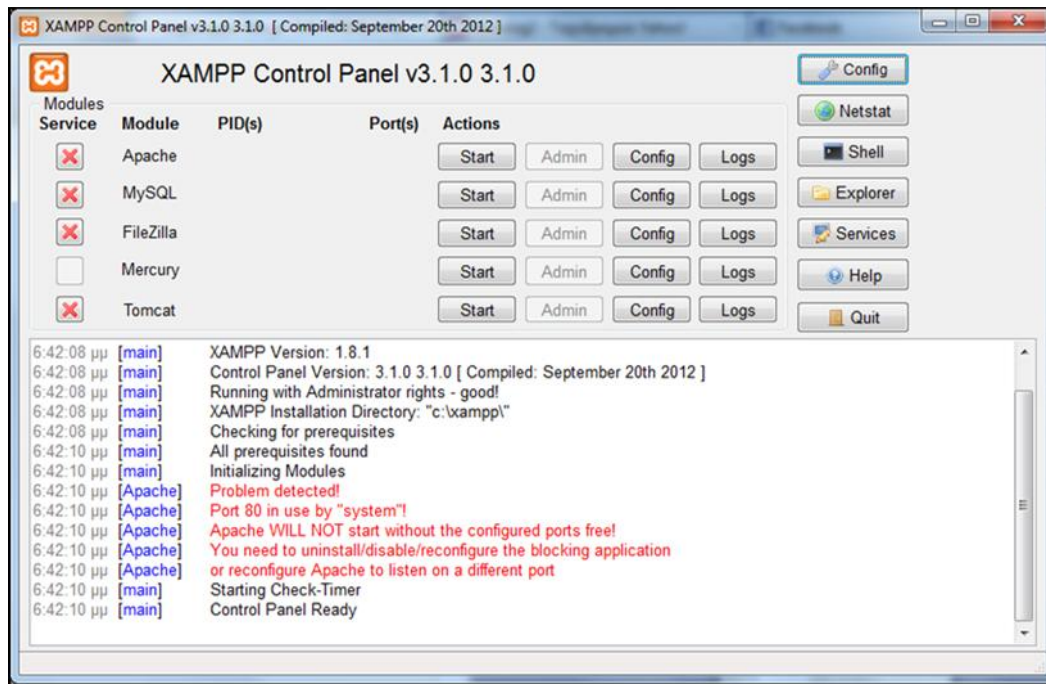




1 -

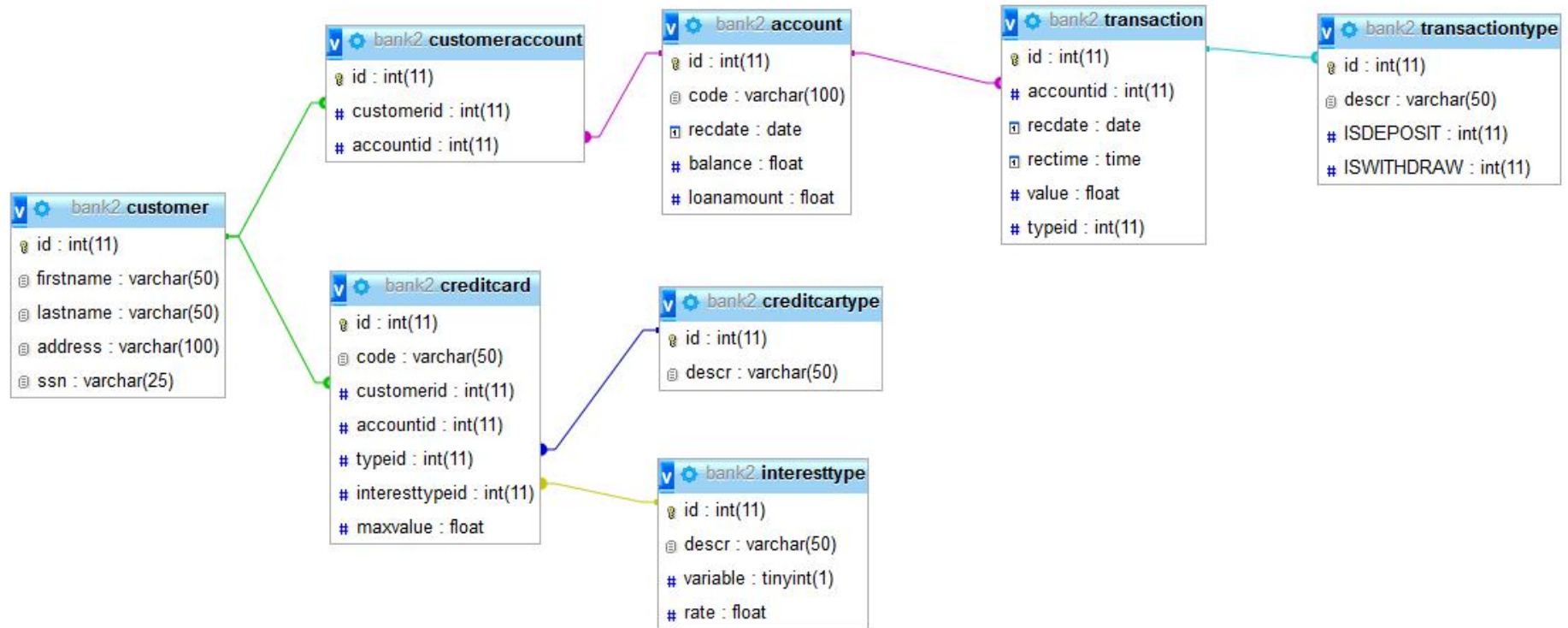
Xampp

μ Control Panel XAMPP Server,
μ Apache MySQL.

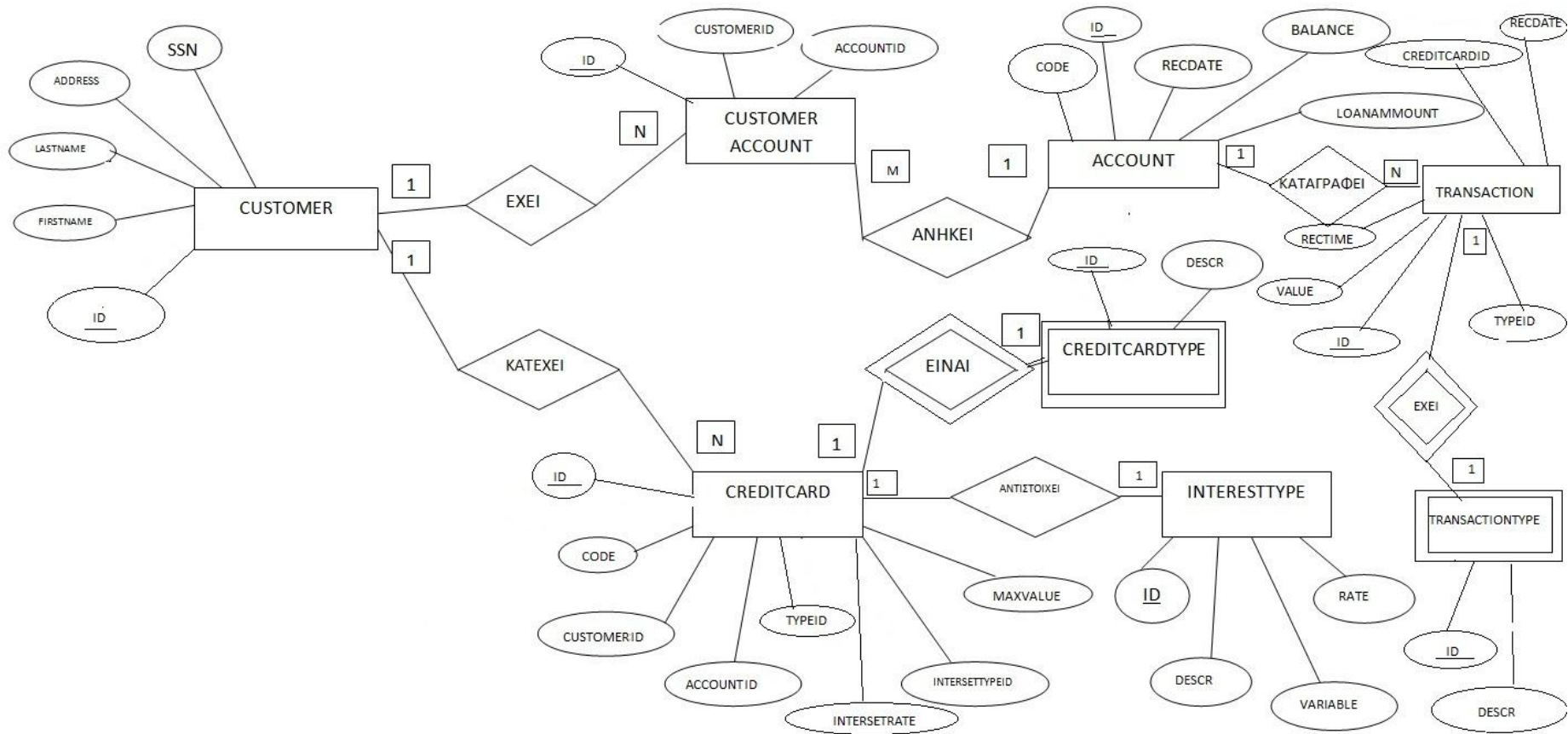


2 - Control Panel Xampp Server

(1)



(2)



5. _____

μμ

:

Customer:

Customer(id) → customer(firstname), customer(lastname), customer(address),
customer(snn), customer(loanamount)

Customer(snn) → customer(firstname), customer(lastname),
customer(address).

account:

Account(id) → account(code), account(recdate), account(balance).

customeraccount:

Customeraccount(id) → customeraccount(customerid)

Customeraccount(id) → customeraccount(accounted).

creditcartype:

Creditcartype(id) → creditcartype(descry).

creditcard:

Creditcard(id) → creditcard(code)

Creditcard(id) → creditcard(code)

Creditcard(id) → creditcard(customerid)

Creditcard(id) → creditcard(accountid)

Creditcard(id) → creditcard(typeid)

Creditcard(id) → creditcard(interesttypeid)

Creditcard(id) → creditcard(maxvalue).

interesttype:

Interesttype(id) → interesttype(descr)

Interesttype(id) → interesttype(variable)

Interesttype(id) → interesttype(rate)

transaction:

Transaction(id) → transaction(creditcardid)

Transaction(id) → transaction(recdate)

Transaction(id) → transaction(rectime)

Transaction(id) → transaction(value)

Transaction(id) → transaction(typeid)

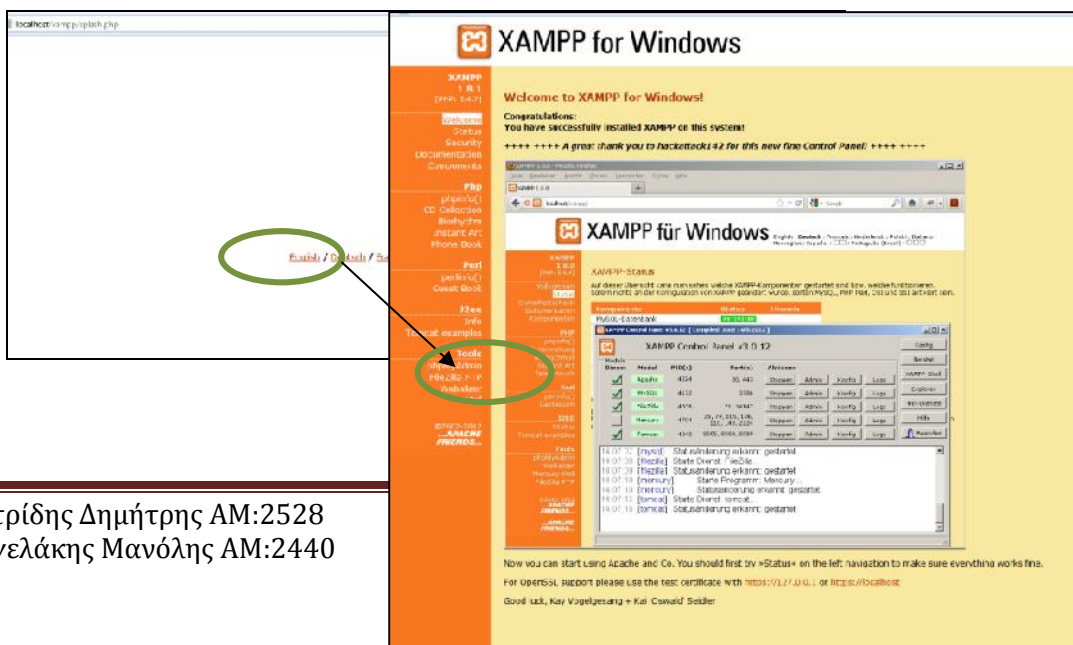
transactiontype:

Transactiontype(id) → transactiontype(descr).

6. μ

6.1. Δημιουργία ΒΔ bankdb.

μ Mozilla Firefox μ localhost μ μ
 , μ English μ
 XAMPP server μ
 phpAdmin μ μ μ μ . [10]



Πετρίδης Δημήτρης AM:2528
Αγγελάκης Μανόλης AM:2440

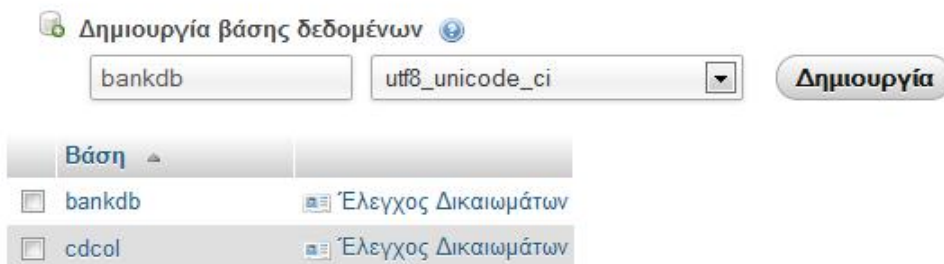
XAMPP Server

bankdb utf8_unicode_ci

web interface



Βάσεις δεδομένων



6.2. Δημιουργία πινάκων της ΒΔ bankdb

customer -

id(int) - (), firstname(char)-

(), lastname(char) - (), address(char) -

(), ssn(char) - μ ().

id μ μ

μ . μ .

#	Name	Type	Collation	Attributes	Null	Default	Extra
1	id	int(11)			No	None	AUTO_INCREMENT
2	firstname	varchar(50)	greek_bin		No	None	
3	lastname	varchar(50)	greek_bin		No	None	
4	address	varchar(100)	greek_bin		No	None	
5	ssn	varchar(25)	greek_bin		No	None	

3 - customer

2 μ id(int) – (), code(char)- μ μ
 (), recdate(date) – μ μ
 μ (μ μ) balance(float) – μ
 μ (μ μ) loanamount(float)
 μ
 μ .. μ
 μ 1000 10000 .
 id,
 μ
 μ . μ .

#	Όνομα	Τύπος	Σύνθεση	Χαρακτηριστικά	Κενό	Προεπιλογή	Πρόσθετα
1	id	int(11)			Όχι	Καμία	AUTO_INCREMENT
2	code	varchar(100)	greek_bin		Όχι	Καμία	
3	recdate	date			Όχι	Καμία	
4	balance	float			Όχι	Καμία	
5	loanamount	float			Όχι	Καμία	

4 - account

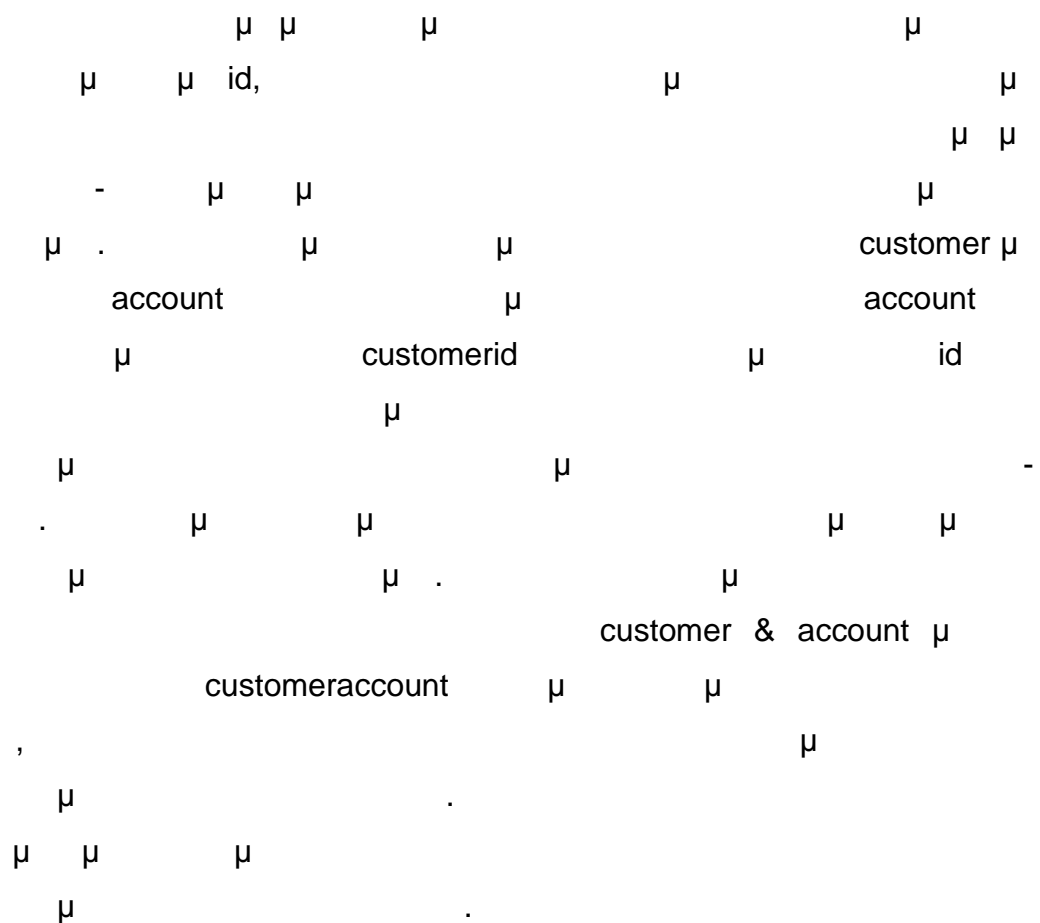
3 μ customeraccount μ μ
 id(int) – (), customerid(int) – ()
 customer accountid(int) –
 μ () account.
 μ μ μ μ

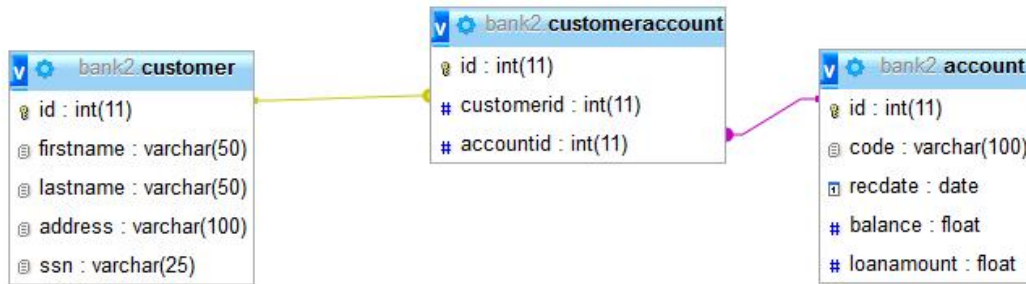
127.0.0.1 » bankdb » customeraccount

Περιήγηση Δομή Κώδικας SQL Αναζήτηση

#	Όνομα	Τύπος	Σύνθεση	Χαρακτηριστικά	Κενό	Προεπιλ
<input type="checkbox"/>	1 id	int(11)			Όχι	Καμία
<input type="checkbox"/>	2 customerid	int(11)			Όχι	Καμία
<input type="checkbox"/>	3 accountid	int(11)			Όχι	Καμία

5 - customeraccount





6 - customer-account-customeraccount

creditcard – μ μ id(int)
 – (), code(char) –
 , customerid(int) –
 , account(id) – μ , typeid(int) –
 (, interestrate(float) – ,
 interesttypeid(int) – , maxvalue(float) – μ μ
 id
 μ 3 customerid, accounted & typeid.

#	Όνομα	Τύπος	Σύνθεση	Χαρακτηριστικά	Κενό	Προεπιλογή	Πρόσθετα
1	id	int(11)			Όχι	Καμία	AUTO_INCREMENT
2	code	varchar(50)	greek_bin		Όχι	Καμία	
3	customerid	int(11)			Όχι	Καμία	
4	accountid	int(11)			Όχι	Καμία	
5	typeid	int(11)			Όχι	Καμία	
6	interesttypeid	int(11)			Όχι	Καμία	
7	maxvalue	float			Όχι	Καμία	

7 - creditcart

creditcartype – μ μ μ μ

#	Όνομα	Τύπος	Σύνθεση	Χαρακτηριστικά	Κενό	Προεπιλογή
1	id	int(11)			Όχι	Καμία
2	descr	varchar(50)	greek_bin		Όχι	Καμία

8 - creditcartype

```

μ      μ      μ
,      μ      μ      μ
:
interesttype -      μ      μ      id(int) -
(      ), descr(char) -      , variable(bool) -
μ      μ      , rate(float) .

```

#	Όνομα	Τύπος	Σύνθεση	Χαρακτηριστικά	Κενό	Προεπιλογή	Πρόσθετα
1	id	int(11)			Όχι	Καμία	AUTO_INCREMENT
2	descr	varchar(50)	greek_bin		Όχι	Καμία	
3	variable	tinyint(1)			Όχι	Καμία	
4	rate	float			Όχι	Καμία	

9 - interesttype

#	Όνομα	Τύπος	Σύνθεση	Χαρακτηριστικά	Κενό	Προεπιλογή	Π
<input type="checkbox"/>	1 id	int(11)			Όχι	Καμία	A
<input type="checkbox"/>	2 creditcardid	int(11)			Όχι	Καμία	
<input type="checkbox"/>	3 recdate	date			Όχι	Καμία	
<input type="checkbox"/>	4 rectime	time			Όχι	Καμία	
<input type="checkbox"/>	5 value	float			Όχι	Καμία	
<input type="checkbox"/>	6 typeid	int(11)			Όχι	Καμία	

10 - transaction

μ μ transactiontype μ
μ

#	Όνομα	Τύπος	Σύνθεση	Χαρακτηριστικά	Κενό	Προεπιλ
<input type="checkbox"/>	1 id	int(11)			Όχι	Καμία
<input type="checkbox"/>	2 descr	varchar(50)	gb2312_bin		Όχι	Καμία

11 - transactiontype

μ μ administrator –
μ μ admin/ admin. μ μ
μ

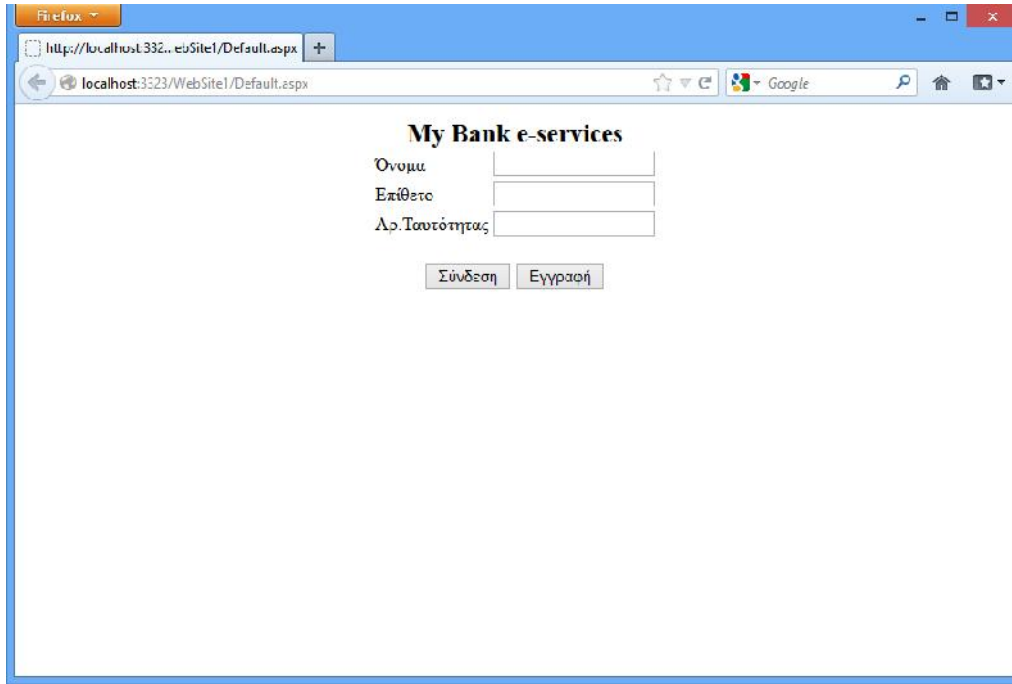
6.3.Μετάφραση του Σχεσιακού μοντέλου της ΒΔ της Τράπεζας

6.4.Κανονικοποίηση και κλειδιά πινάκων

- R 3 (3rd Normal Form - 3NF¹)
- 2NF :
- (μ μ K
 - μ μ μ μ 5
- μ μ , μ 3

7. μ Web Banking

μ μ μ μ Xampp
Server , μ μ μ phpmyadmin μ
μ μ μ (μ μ
bank2.sql). μ
μ μ μ Visual Studio 2008
Express Visual Studio 2012 Express for Web. μ μ
μ web μ
<http://www.microsoft.com/visualstudio/eng/products/visual-studio-express-for-web> . μ Run WebSite1
μ μ .
μ μ μ μ .



12 -

μ

μ

μ

μ

μ

μ ,

μ ,

μ

μ

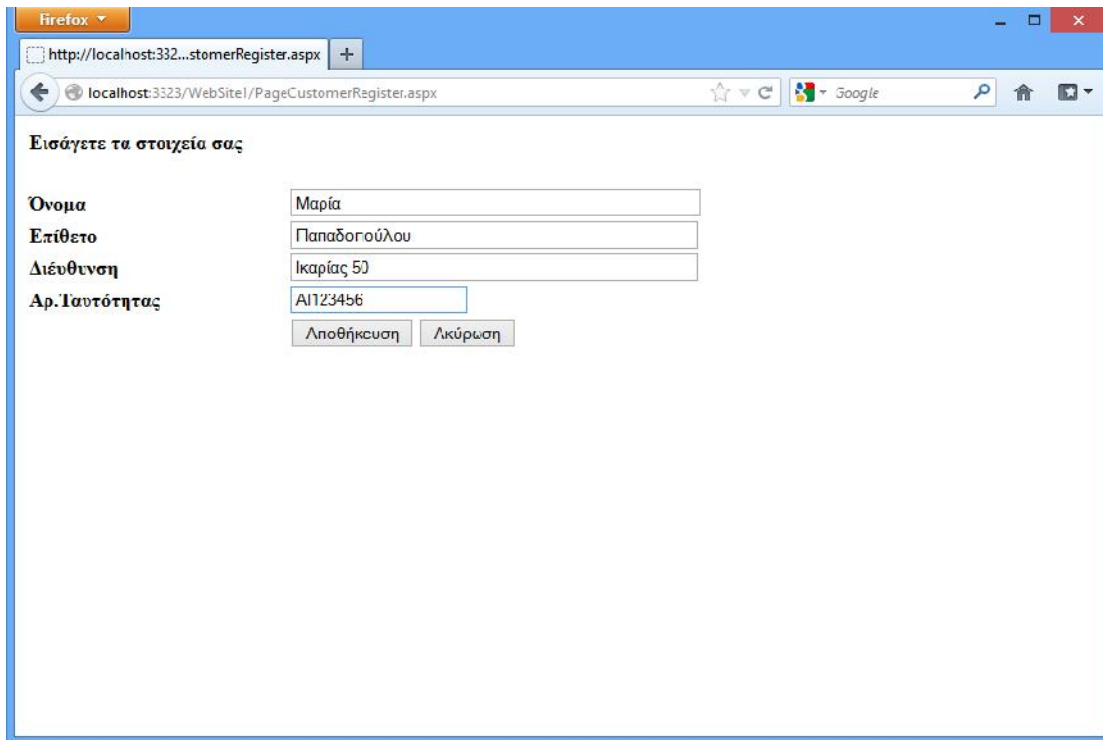
..

7.1.

:

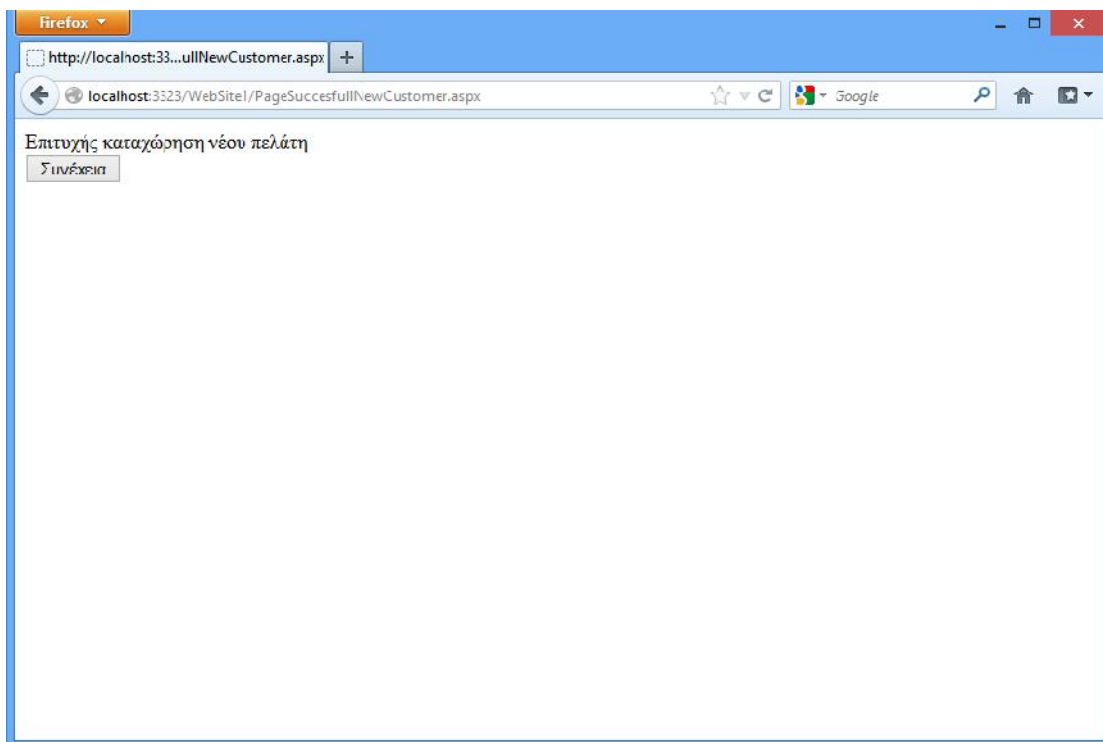
μ

.



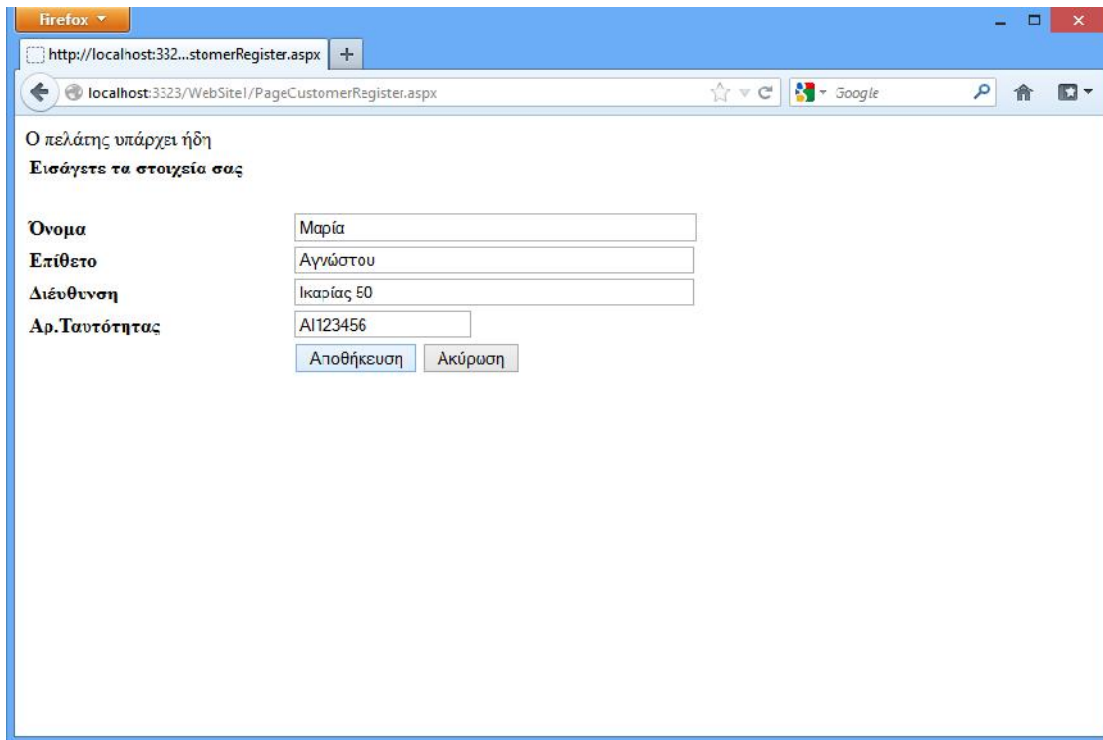
13 -

μ



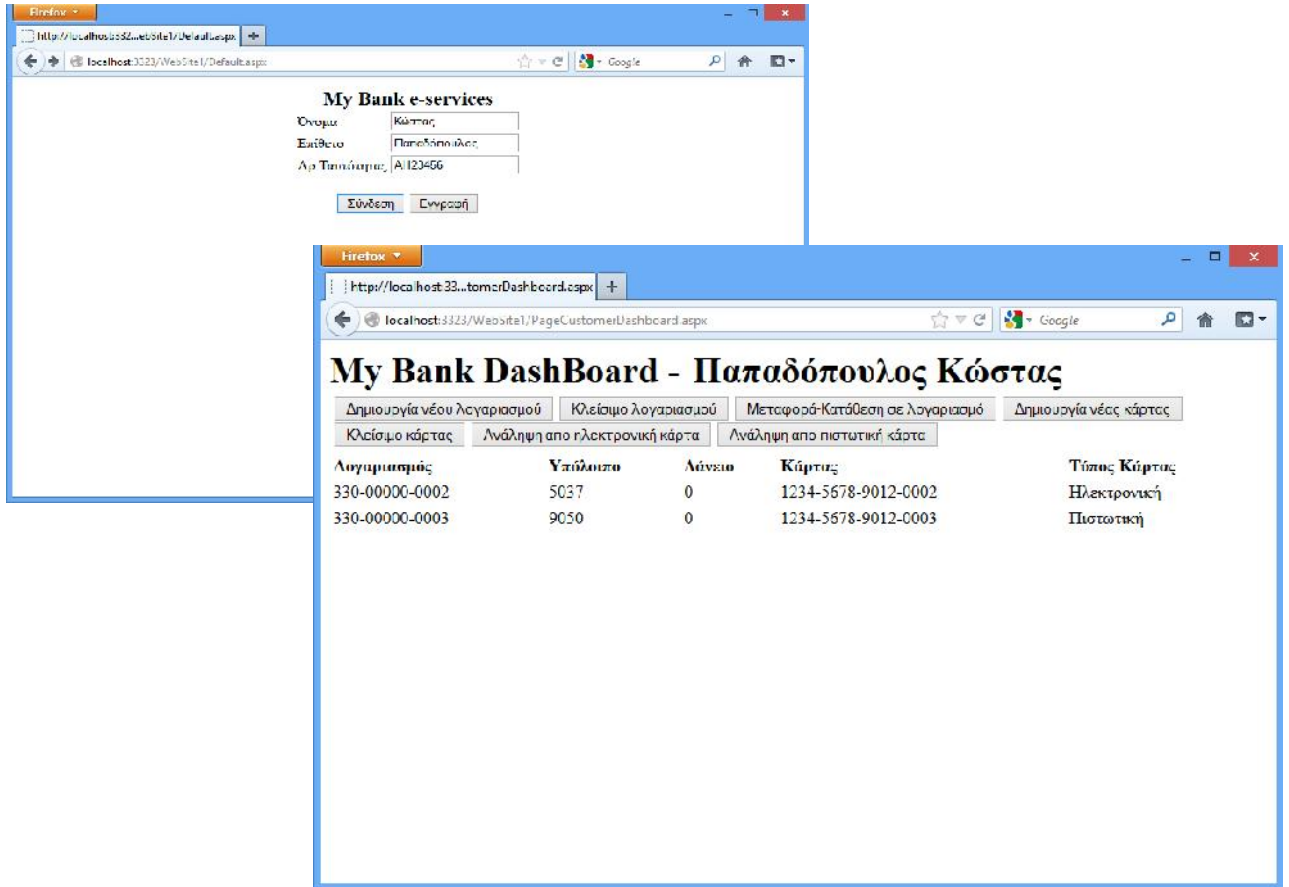
14 -

μ



15 -

μ -
μ μ μ μ
μ . : 123456 μ . :
456789.
μ μμ
μ .
7.2.
μ μ
μ .



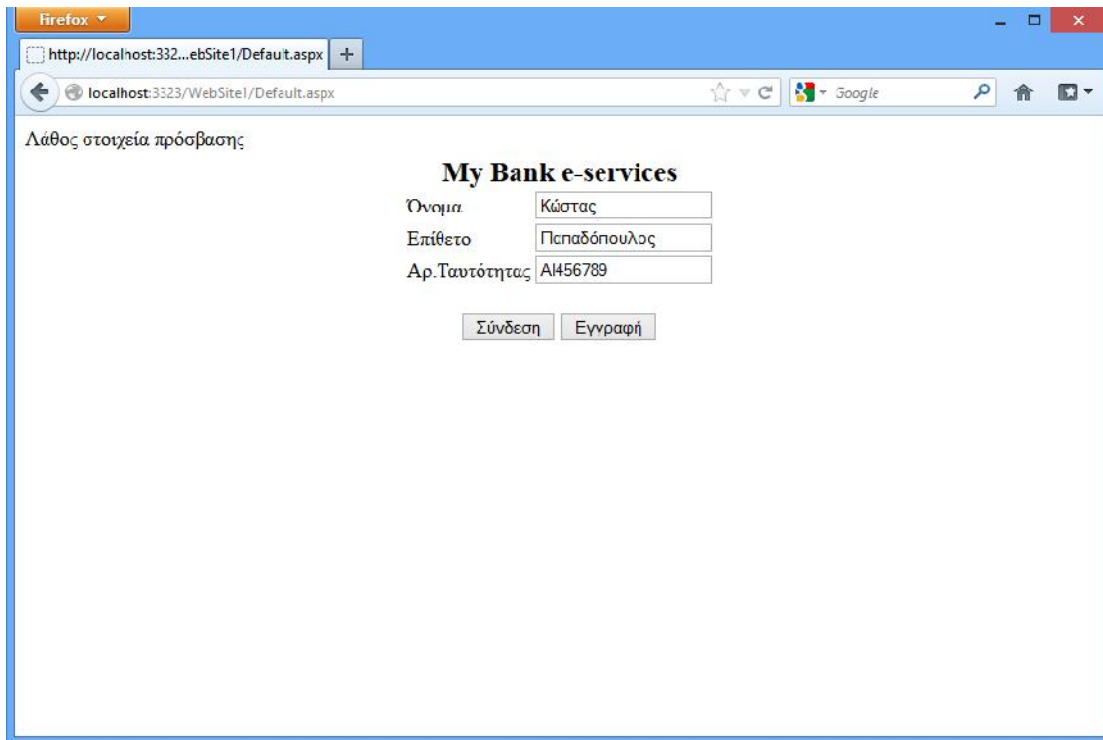
16 -

7.3.

:
 μ μ .

7.4.

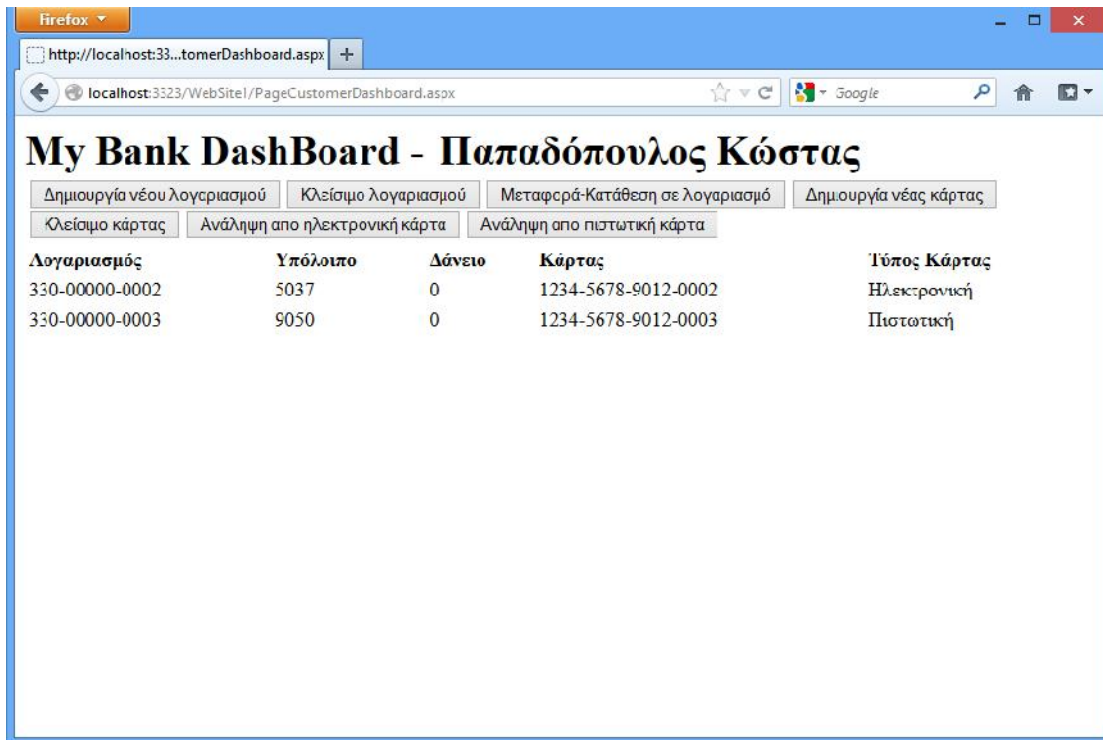
:
 μ μ μ « μ » μ .



17 -

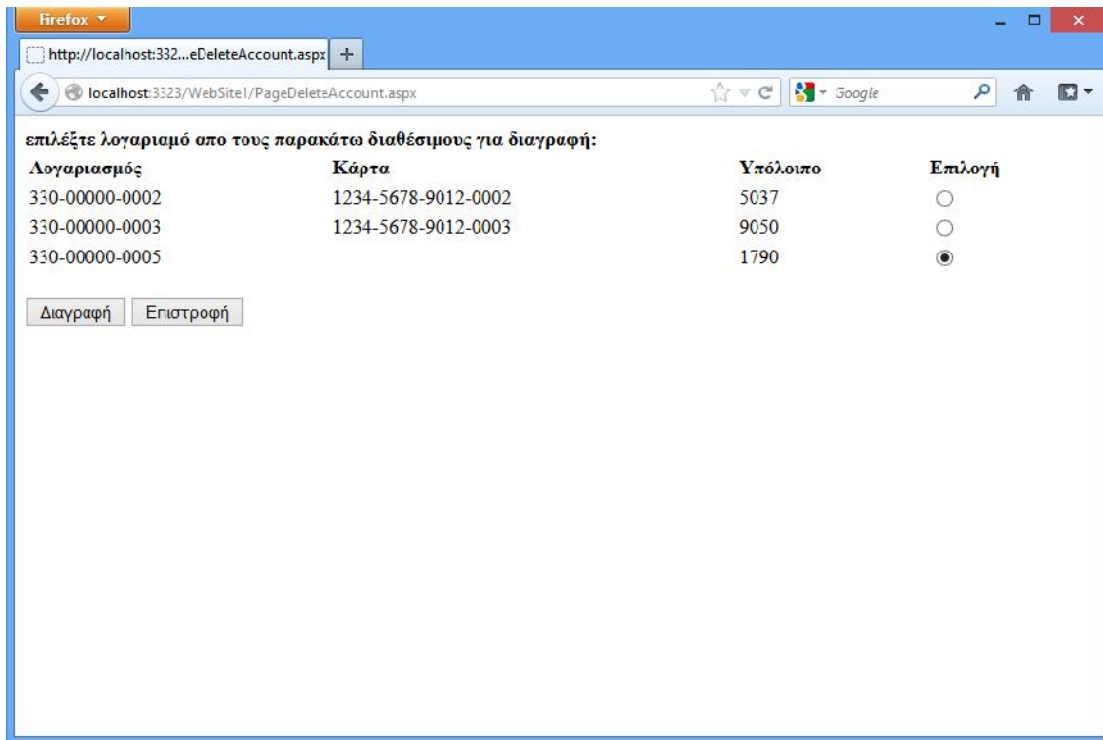
7.5.

μ
μ
μ
μ
μ



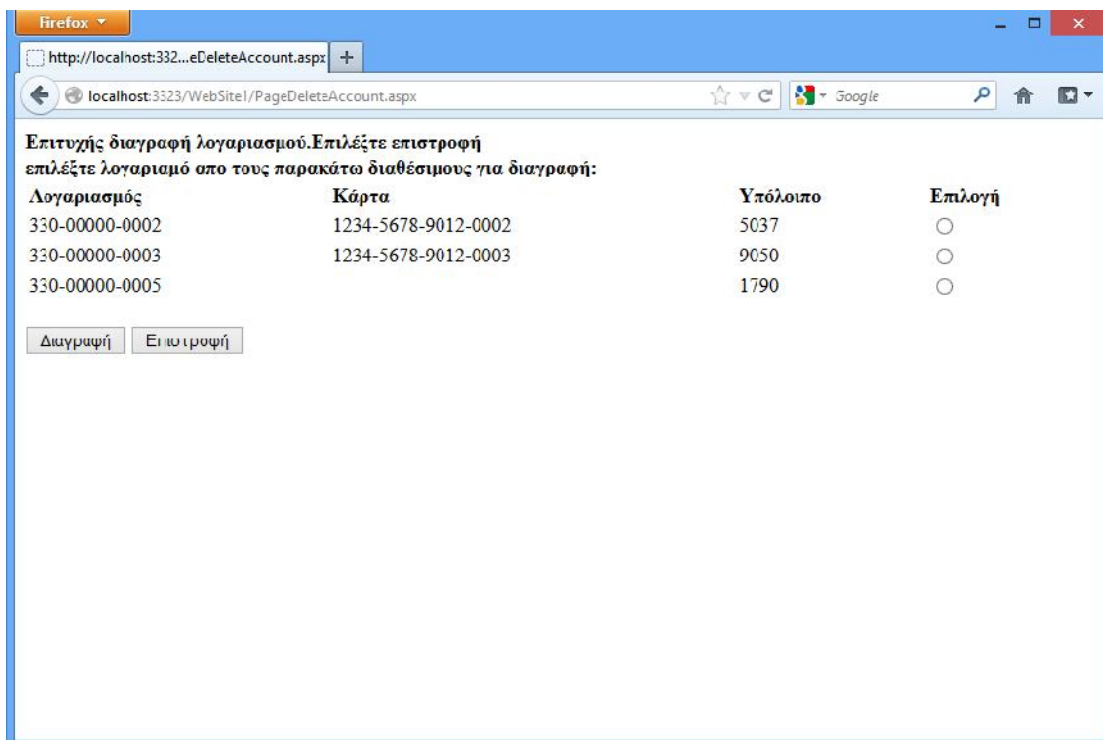
18 -

μ



20 -

μ



21 -

μ

μ

7.6.

-

μ

μ

μ

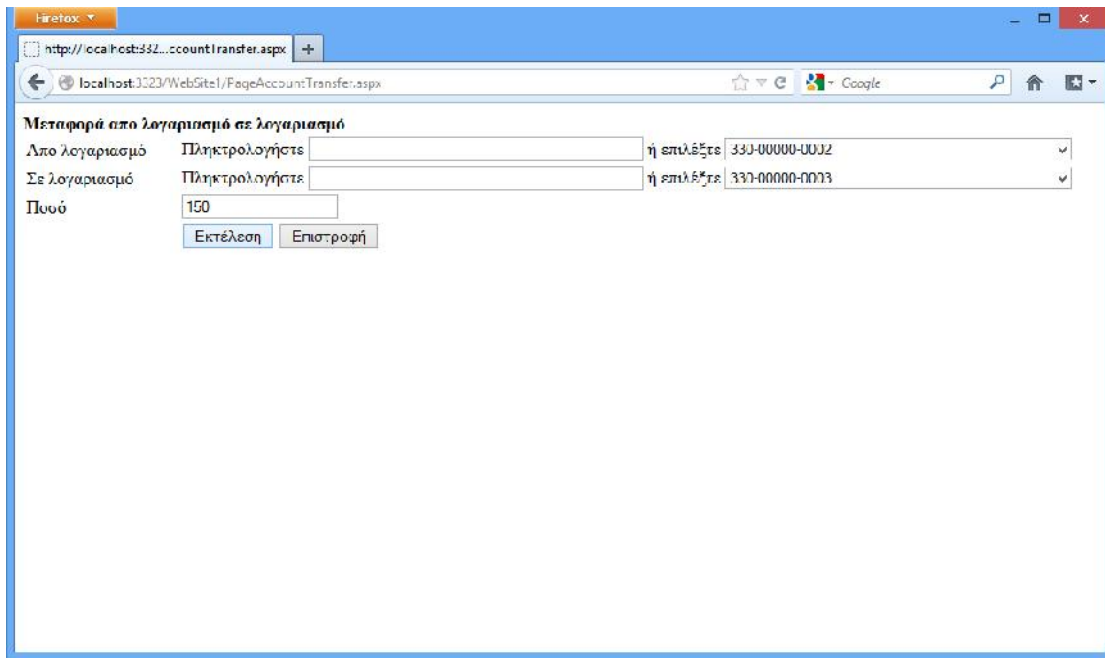
μ

μ

μ

μ

.



22 -

μ

μ

μ

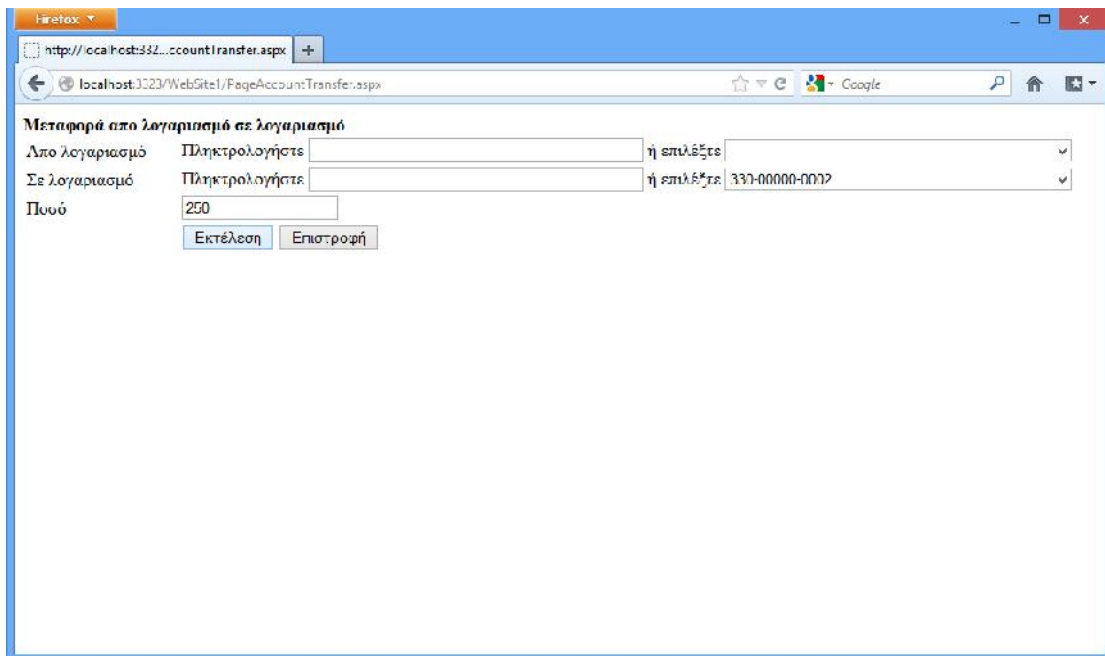
μ

μ

μ

μ

μ



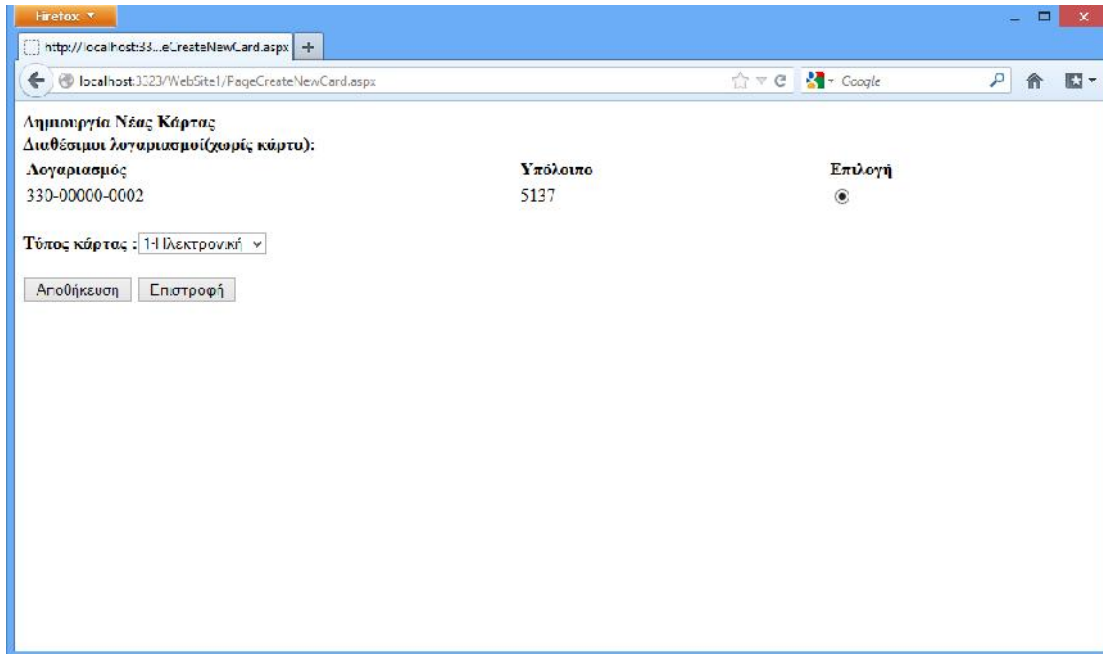
23 -

μ

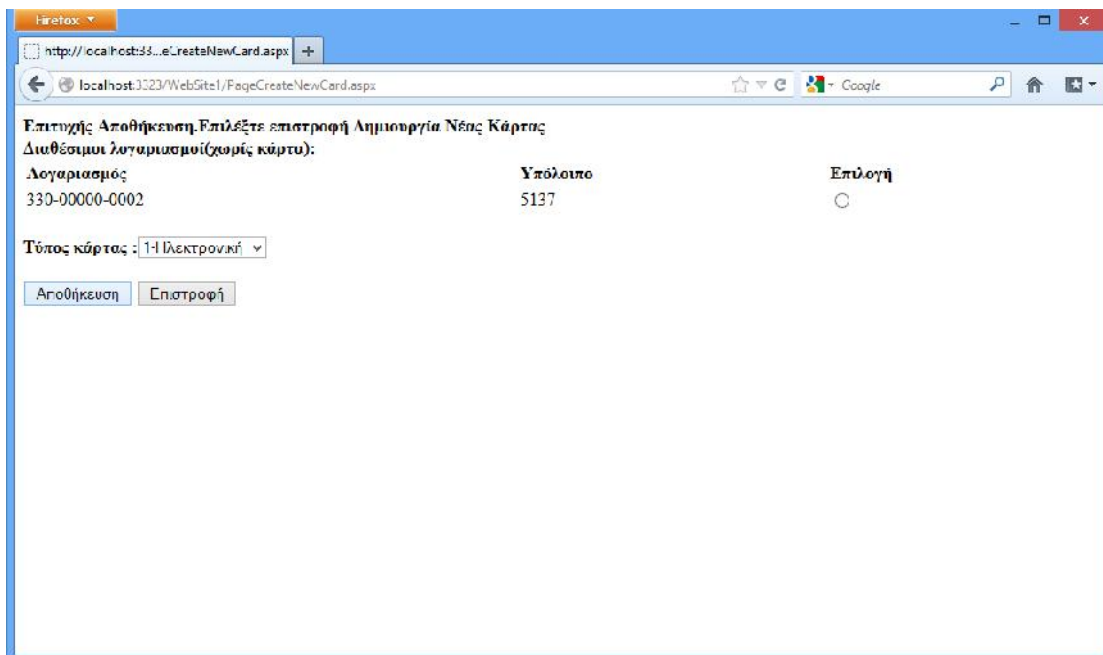
μ

7.7. μ

μ μ μ
μ . μ μ μ
, μ μ



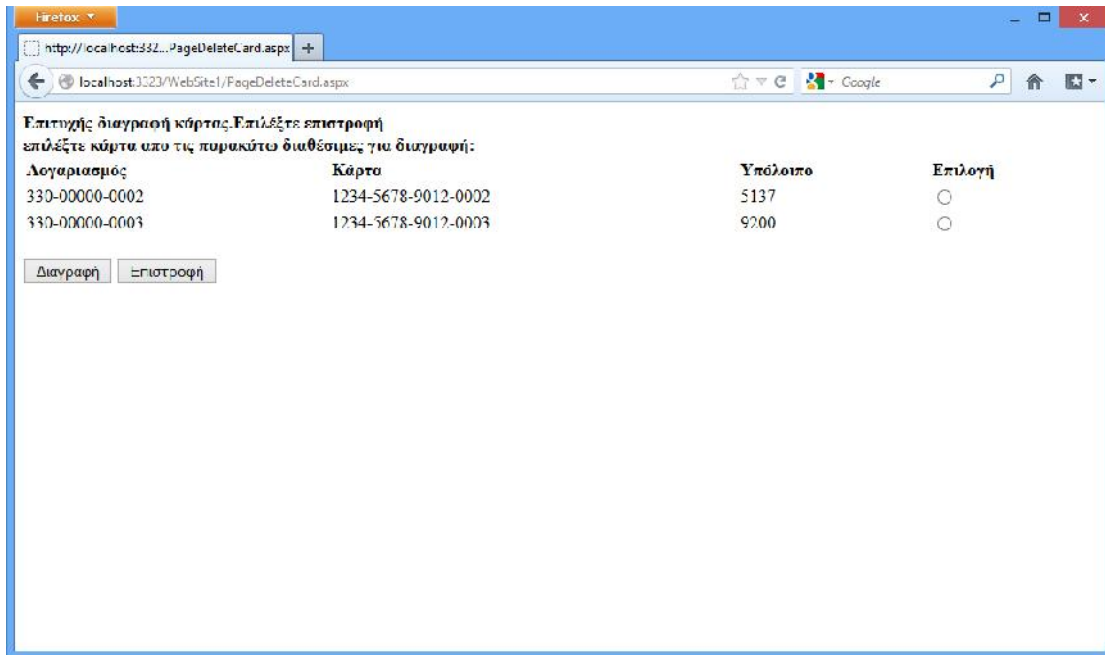
24- μ



25 - μ

7.8.

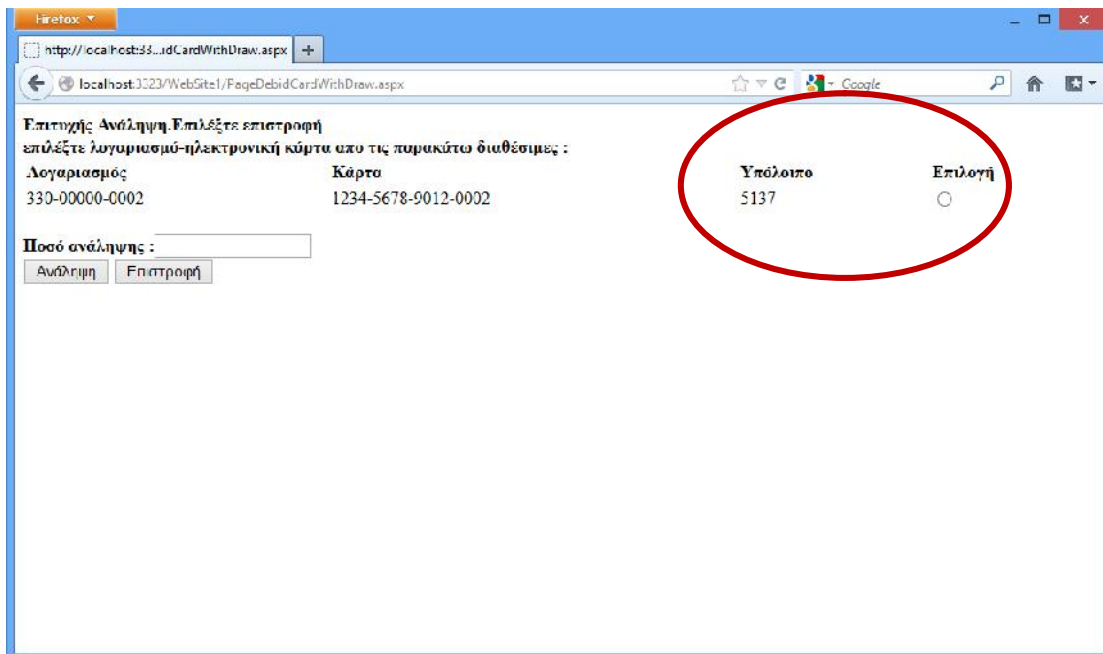
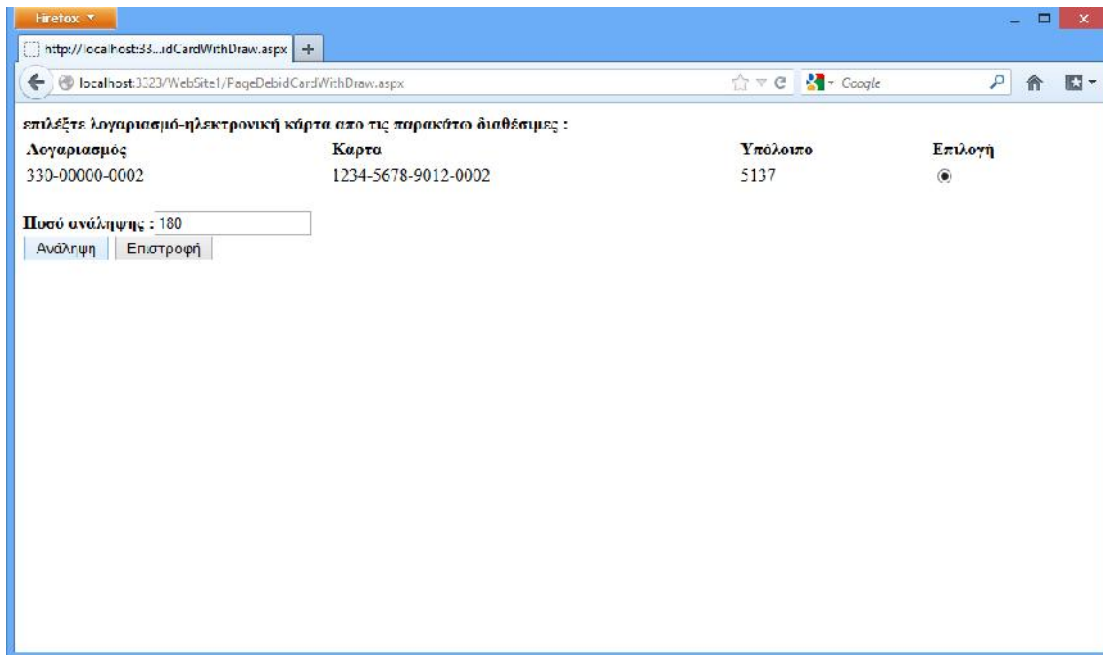
μ
, μ μ
μ μ μ
μ .



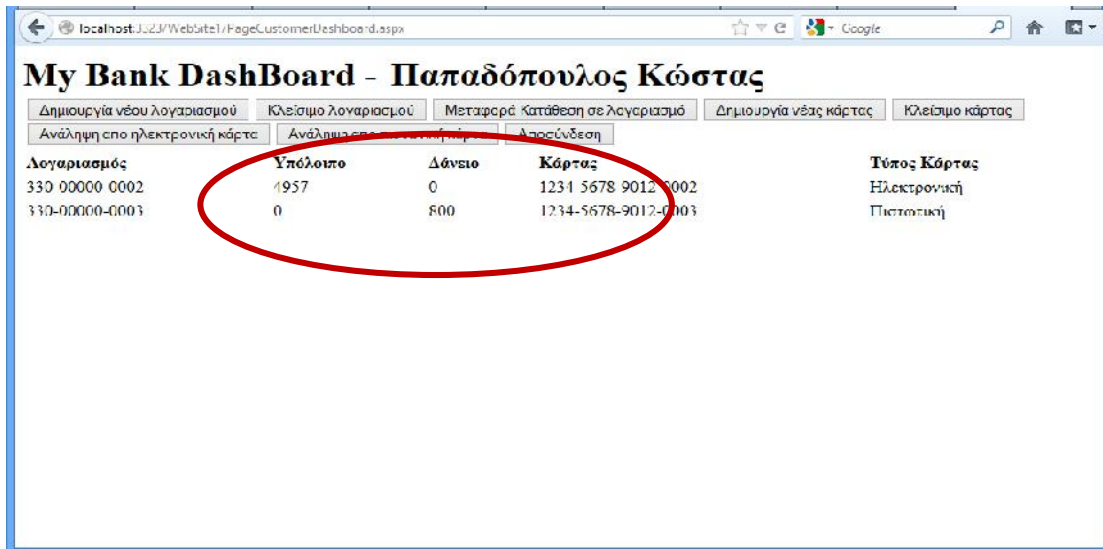
26 -

7.9.

μ μ μ
, μ
.



27 -



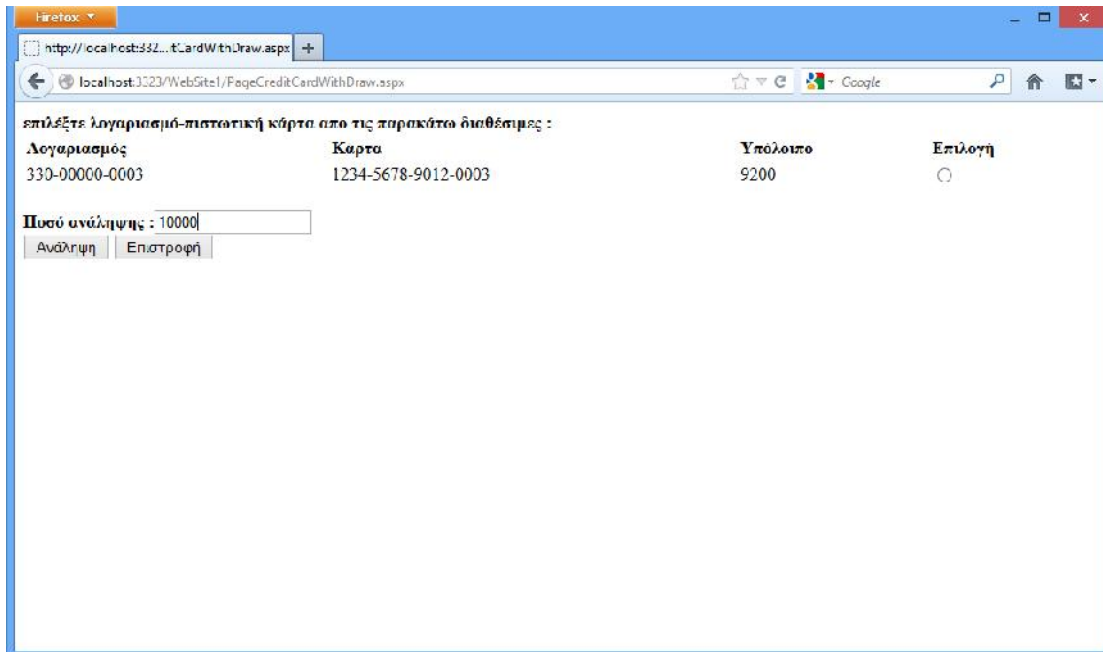
28 -

μ μ

μ

7.10.

μ 10.000 μ μ
μ 800



29 -

localhost:3323/WebSite1/PageCustomerDashboard.aspx

My Bank Dashboard - Παπαδόπουλος Κώστας

Λογαριασμός	Υπόλοιπο	Λόγος	Κάρτα	Τύπος Κάρτας
330 00000 0002	1957	0	1234 5678 9012 0002	Ηλεκτρονική
330-00000-0003	0	800	1234-5678-9012-0003	Πιστωτική

30 -

μ μ μ μ
 800€ , 500€
 :

localhost:3323/WebSite1/PageCustomerDashboard.aspx

My Bank Dashboard - Παπαδόπουλος Κώστας

Λογαριασμός	Υπόλοιπο	Λόγος	Κάρτα	Τύπος Κάρτας
330 00000 0002	2157	0	1234 5678 9012 0002	Ηλεκτρονική
330-00000-0003	0	326.4	1234-5678-9012-0003	Πιστωτική

31 -

μ

7.11.

μ μ μ μ
 μ admin/admin
 μ

My Bank e-services

Όνομα
Επίθετο
Αρ. Ταυτότητας

32 -

localhost:3323/WebSite1/PageAdminSearchCard.aspx

Αναζήτηση πιστωτικής κάρτας για αλλαγή επιτοκίου και τύπου

Δώστε κωδικό κάρτας :

33 -

12

localhost:3323/WebSite1/PageAdminEditCard.aspx

Λογαριασμός κάρτας:330-00000-0003

Τύπος επιτοκίου : ▾

Επιτόκιο :

34 -

8. _____ μ

μ

μ

DB

μ

μ

μ .

μ :


```

<table align="center" >
  <tr align="center" valign="middle">
    <td align="center" valign="middle">
      <asp:Label ID="Label1" runat="server" Text="My
Bank e-services"
          Font-Bold="True" Font-
Size="17pt"></asp:Label>
      <br />
      <table class="style1">
        <tr>
          <td class="style2">
            <asp:Label ID="Label2" runat="server"
Text="  μ "></asp:Label>
          </td>
          <td>
            <asp:TextBox ID="txtFirstName"
runat="server"> </asp:TextBox> </td>
          </tr>
          <tr>
            <td class="style2">
              <asp:Label ID="Label3" runat="server"
Text="      "></asp:Label></td>
            <td>
              <asp:TextBox ID="txtLastName"
runat="server"> </asp:TextBox> </td>
            </tr>
            <tr>
              <td class="style2">
                . </td>
              <td>
                <asp:TextBox ID="txtSSN"
runat="server"> 123456</asp:TextBox> </td>
              </tr>
            </table>
            <br />
            <asp:Button ID="cmdLogin" runat="server"
Text="      " />
            <asp:Button ID="cmdRegistre" runat="server"
Text="      " />
          </td>
        </tr>
      </table>

```

Κώδικας Αρχικής Οθόνης – Default.vb

```

Imports System.Data.Odbc
Imports System.Data

Partial Class _Default
    Inherits System.Web.UI.Page

    Protected Sub cmdRegistre_Click(ByVal sender As Object, ByVal e As
System.EventArgs) Handles cmdRegistre.Click
        Response.Redirect("PageCustomerRegister.aspx")
    End Sub

```

```

End Sub

Protected Sub cmdLogin_Click(ByVal sender As Object, ByVal e As
System.EventArgs) Handles cmdLogin.Click

    Dim c As New clsMySQL
    Dim mV As String

    'anixe tin syndesi
    mV = c.mOpenConnection()

    If mV <> "ok" Then
        Response.Write("<b>Error:" & mV & "</b>")
    End If

    If txtFirstName.Text.ToLower = "admin" And txtLastName.Text.ToLower
= "admin" Then
        Response.Redirect("PageAdminSearchCard.aspx")
        Return
    End If

    'elenxe an einai sosta ta stoixeia
    Dim dt As DataTable
    dt = c.mSelect("select * from customer " & _
        "where " & _
        "firstname='" & txtFirstName.Text & "' and " & _
        "lastname='" & txtLastName.Text & "' and " & _
        "ssn='" & txtSSN.Text & "' ")

    If dt.Rows.Count = 0 Then
        Response.Write(" ")
        Exit Sub
    End If

    c = Nothing

    'vale stin metavliti customerid to id tou pelati pou kanei login
    Session("CustomerID") = dt.Rows(0)("id")

    Response.Redirect("PageCustomerDashboard.aspx")

End Sub
End Class

```

Κώδικας Σελίδας μεταφοράς χρημάτων - PageAccountTransfer.aspx

```

<%@ Page Language="VB" AutoEventWireup="false"
CodeFile="PageAccountTransfer.aspx.vb" Inherits="PageAccountTransfer"
%>

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">

<html xmlns="http://www.w3.org/1999/xhtml">

```

```

<head runat="server">
  <title></title>
  <style type="text/css">
    .style1
    {
      width: 100%;
    }
    .style2
    {
      width: 137px;
    }
  </style>
</head>
<body>
<b>
  <form id="form1" runat="server">
    <table class="style1">
      <tr>
        <td class="style2">
          <asp:Label ID="Label1" runat="server" Text="
μ "></asp:Label>
          </td>
          <td>
            <asp:TextBox ID="txtFromAccount "
runat="server" Width="298px"></asp:TextBox>
            <asp:DropDownList ID="cmbFromAccount" runat="server"
Width="315px" AutoPostBack="False">
              </asp:DropDownList>
            </td>
          </tr>
          <tr>
            <td class="style2">
              <asp:Label ID="Label2" runat="server" Text="
μ "></asp:Label></td>
              <td>
                <asp:TextBox ID="txtToAccount "
runat="server" Width="298px"></asp:TextBox>
                <asp:DropDownList ID="cmbToAccount" runat="server"
Width="315px">
                  </asp:DropDownList>
                </td>
              </tr>
              <tr>
                <td class="style2">
                  <asp:Label ID="Label3" runat="server"
Text=" " ></asp:Label></td>
                  <td>
                    <asp:TextBox ID="txtAmount "
runat="server"></asp:TextBox>
                    </td>
                  </tr>
                  <tr>
                    <td class="style2">
                      &nbsp;</td>
                    <td>
                      <asp:Button ID="cmdExecute" runat="server"
Text=" " />
                      <asp:Button ID="cmdCancel" runat="server"
Text=" " />
                    </td>
                  </tr>
                </table>
  </b>

```

```
        </tr>
    </table>
    <div>

    </div>
</form>
</body>
</html>
```

Κώδικας μεταφοράς χρημάτων - PageAccountTransfer.aspx.vb

```
Imports System.Data
Imports System.Data.Odbc

Partial Class PageAccountTransfer
    Inherits System.Web.UI.Page

    Protected Sub cmdExecute_Click(ByVal sender As Object, ByVal e As
System.EventArgs) Handles cmdExecute.Click

        Dim c As New clsMySQL
        Dim f As New clsFunc
        Dim bl As New clsBL
        Dim mV As String

        'anixe tin syndesi
        mV = c.mOpenConnection()

        If mV <> "ok" Then
            Response.Write("<b>Error:" & mV & "</b>")
        End If

        Dim mCon As OdbcConnection

        mCon = c.mRetCon

        Dim mTrans As OdbcTransaction = Nothing
        Try

            mTrans = mCon.BeginTransaction()

            Dim mDepositID As Integer
            Dim mWithdrawID As Integer

            'pare ta id ton kiniseon gia katethesi kai analipsi
            mDepositID = bl.GetDepositTransactionID(c, mTrans)
            mWithdrawID = bl.GetWithdrawTransactionID(c, mTrans)

            Dim mFromAccount As String
            Dim mToAccount As String

            'pare to sosto fromaccount kai to account me vasi tis epiloges
stin forma
            If Request.Form("txtFromAccount") <> "" Then
                mFromAccount = txtFromAccount.Text
            Else
                mFromAccount = Request.Form("cmbFromAccount")
            End If

            If Request.Form("txtToAccount") <> "" Then
                mToAccount = Request.Form("txtToAccount")
            Else
                mToAccount = Request.Form("cmbToAccount")
            End If
        End Try
    End Sub
End Class
```

```

Dim mAmount As Double
mAmount = Request.Form("txtAmount")

'elenxe an yparxoun oi logariasmoi
If mFromAccount <> "" Then
    If bl.CheckAccountExist(mFromAccount, c, mTrans) = False Then
        Response.Write("<b>                μ : " & mFromAccount
& "</b>")
        mTrans.Rollback()
        Return
    End If
End If

If bl.CheckAccountExist(mToAccount, c, mTrans) = False Then
    Response.Write("<b>                μ : " & mToAccount &
"</b>")
    mTrans.Rollback()
    Return
End If

'elenxe an yparxoun diathesima xrimata
If mFromAccount <> "" Then
    If bl.CheckAccountHasBalace(mFromAccount, mAmount, c, mTrans) =
False Then
        Response.Write("<b>                μ " & mFromAccount
& "                μ                </b>")
        mTrans.Rollback()
        Return
    End If
End If

'exei eparkes ypoloipo opote kane analipsi kai katethesi
'prota kane analipsi apo ton arxiko logariasmo
If mFromAccount <> "" Then
    bl.DoAccountWithdraw(mFromAccount, mAmount, mWithdrawID, c,
mTrans)
End If

'pare to poso tou daneio pou exi o logariasmos
Dim mToAccountLoanAmount As Double
mToAccountLoanAmount = bl.RetAccountLoanAmount(mToAccount, c,
mTrans)

If mToAccountLoanAmount > 0 Then 'an exi daneio prota exoflise to
daneio kai meta oti minei gia na mpei sto logariasmo

'pare to miniaio epitokio tis pistotikis kartas tou logariasmou
Dim mCreditCardRate As Double
mCreditCardRate = bl.RetAccountCreditCartInterestRate(mToAccount,
c, mTrans)

```

```

'ypologise to poso tis epivarinsis me vasi to epitokio
Dim mExtraLoanAmount As Double
mExtraLoanAmount = (mToAccountLoanAmount *
Math.Round(mCreditCardRate, 2)) / 100
mExtraLoanAmount = Math.Round(mExtraLoanAmount, 2)

'enimerose to daneio me tin epivarinsi
bl.DoAccountAddLoanAmount(mToAccount, mExtraLoanAmount, c,
mTrans)

'xanadiavase to neo poso tou daneiou me tin epivarinsi tou
epitokiou
mToAccountLoanAmount = bl.RetAccountLoanAmount(mToAccount, c,
mTrans)

'ypologise to neo ypoloipo tou daneiou
Dim mNewLoanAmount As Double
mNewLoanAmount = mToAccountLoanAmount - mAmount

If mNewLoanAmount > 0 Then 'ean to neo ypoloipo tou daneiou einai
>0 tote akomi den exiflithei
bl.DoAccountDecreaseLoanAmount(mToAccount, mAmount, c, mTrans)

Else 'ean to neo ypoloipo tou daneiou einai <0 tote exi
exoflithei kai h diafora paei sto ypoloipo tou logariasmo

'midenise to daneio
bl.DoAccountDecreaseLoanAmount(mToAccount,
mToAccountLoanAmount, c, mTrans)

'kane katathesi tin diafora ston logariasmo

bl.DoAccountDeposit(mToAccount, Math.Abs(mNewLoanAmount),
mDepositID, c, mTrans)

End If

Else 'an den exi daneio tote vale olo to poso ston logariasmo
'telos kane katathesi ston teliko logariasmo
bl.DoAccountDeposit(mToAccount, mAmount, mDepositID, c, mTrans)
End If

mTrans.Commit()

Response.Write("<b>          μ          -          .
</b>")

Catch ex As Exception
mTrans.Rollback()
Response.Write("Error : " & ex.Message)
End Try

```



```

End Sub

Protected Sub Page_Load(ByVal sender As Object, ByVal e As
System.EventArgs) Handles Me.Load

    'fortose tous logariasmous tou xristi
    cmbFromAccount.Items.Clear()
    cmbToAccount.Items.Clear()

    Dim c As New clsMySQL
    Dim f As New clsFunc
    Dim bl As New clsBL
    Dim mV As String

    'anixe tin syndesi
    mV = c.mOpenConnection()

    If mV <> "ok" Then
        Response.Write("<b>Error:" & mV & "</b>")
    End If

    Dim dt As DataTable
    dt = c.mSelect("select account.code as accountcode from
customeraccount " & _
        "left join account " & _
        "on customeraccount.accountid=account.id " & _
        "where customeraccount.customerid=" &
Session("CustomerID"))

    Dim i As Integer
    cmbFromAccount.Items.Add("")
    For i = 0 To dt.Rows.Count - 1
        cmbFromAccount.Items.Add(dt.Rows(i)("accountcode"))
        cmbToAccount.Items.Add(dt.Rows(i)("accountcode"))
    Next

End Sub

Protected Sub cmdCancel_Click(ByVal sender As Object, ByVal e As
System.EventArgs) Handles cmdCancel.Click
    Response.Redirect("PageCustomerDashboard.aspx")
End Sub
End Class

```

Κώδικας Σελίδας επεξεργασίας επιτοκίου – PageAdminEditCard.aspx

```

<%@ Page Language="VB" AutoEventWireup="false"
CodeFile="PageAdminEditCard.aspx.vb" Inherits="PageAdminEditCard" %>

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">

```

```

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
  <title></title>
</head>
<body>
  <form id="form1" runat="server">
    <div>
      <div runat="server" id="divDebitCards"></div>
      <b>
        :</b><asp:DropDownList ID="cmbType"
runat="server">
</asp:DropDownList>
      <br />
      <b>
        :</b><asp:TextBox ID="txtRate" runat="server">
        </asp:TextBox>
      </div>
      <asp:Button ID="cmdSave" runat="server" Text="
        " />
      <asp:Button ID="cmdCancel" runat="server" Text="
        " />
    </form>
  </body>
</html>

```

Κώδικας επεξεργασίας επιτοκίου - PageAdminEditCard.aspx.vb

```

Imports System.Data.Odbc
Imports System.Data

Partial Class PageAdminEditCard
  Inherits System.Web.UI.Page

  Protected Sub Page_Load(ByVal sender As Object, ByVal e As
System.EventArgs) Handles Me.Load

    If Not Page.IsPostBack Then

      Dim c As New clsMySQL
      Dim f As New clsFunc
      Dim bl As New clsBL
      Dim mV As String

      'anixe tin syndesi
      mV = c.mOpenConnection()

      If mV <> "ok" Then
        Response.Write("<b>Error:" & mV & "</b>")
      End If

      Dim mCon As OdbcConnection

      mCon = c.mRetCon

      Dim dt As DataTable

      dt = c.mSelect("select * from creditcard where code=' " &
Session("EditCardCode") & "'")

      Dim mAccountCode As String
      mAccountCode = bl.RetAccountFromCard(Session("EditCardCode"), c)

```

```

divDebitCards.InnerHtml = "<br><b>           μ           :</b>" &
mAccountCode & "<br><br>"

'fortose tous typous ton epitokion
Dim dtI As DataTable
dtI = c.mSelect("select * from interesttype")

Dim i As Integer
Dim mCurTypeIndex As Integer
Dim mCurRate As Double

For i = 0 To dtI.Rows.Count - 1
    If dtI.Rows(i)("id") = dt.Rows(0)("interesttypeid") Then
        mCurTypeIndex = i
        mCurRate = dtI.Rows(i)("rate")
    End If

    cmbType.Items.Add(dtI.Rows(i)("id") & "-" & dtI.Rows(i)("descr"))
Next

'these kai to type tis kartas
cmbType.SelectedIndex = mCurTypeIndex

txtRate.Text = mCurRate

End If
End Sub

Protected Sub cmdCancel_Click(ByVal sender As Object, ByVal e As
System.EventArgs) Handles cmdCancel.Click
    Response.Redirect("PageAdminSearchCard.aspx")
End Sub

Protected Sub cmdSave_Click(ByVal sender As Object, ByVal e As
System.EventArgs) Handles cmdSave.Click

Dim c As New clsMySQL
Dim f As New clsFunc
Dim bl As New clsBL
Dim mV As String

'anixe tin syndesi
mV = c.mOpenConnection()

If mV <> "ok" Then
    Response.Write("<b>Error:" & mV & "</b>")
End If

Dim mCon As OdbcConnection

mCon = c.mRetCon

Dim mTrans As OdbcTransaction = Nothing
Try

    mTrans = mCon.BeginTransaction()

Dim mCardType As String = Request.Form("cmbType")
Dim mRate As String = Request.Form("txtRate")

```

```

    c.mCommand("update creditcard set interesttypeid=" &
mCardType.Split("-")(0) & " where code='" & Session("EditCardCode") &
"'", , mTrans)

    c.mCommand("update interesttype " & _
        "set " & _
        "rate='" & f.cToDot(mRate) & "' " & _
        "where " & _
        "id=" & mCardType.Split("-")(0), , mTrans)

    mTrans.Commit()

    Response.Write("<b>
        </b>")

    Catch ex As Exception
        mTrans.Rollback()
        Response.Write("Error : " & ex.Message)
    End Try

End Sub
End Class

```

Κώδικας σελίδας διαχειριστή για αναζήτηση κάρτας προς αλλαγή επιτοκίου - PageAdminSearchCard.aspx

```

<%@ Page Language="VB" AutoEventWireup="false"
CodeFile="PageAdminSearchCard.aspx.vb" Inherits="PageAdminSearchCard"
%>

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title></title>
</head>
<body>
    <form id="form1" runat="server">
    <div>
    <b>
    </div>
    <p>
        :
        <asp:TextBox ID="txtCode" runat="server"
Width="306px"></asp:TextBox>
        <asp:Button ID="cmdFind" runat="server" Text="
    " />

    </p>
    </form>
</body>
</html>

```

Κώδικας διαχειριστή για αναζήτηση κάρτας προς αλλαγή επιτοκίου - PageAdminSearchCard.aspx.vb

```
Imports System.Data
Imports System.Data.Odbc

Partial Class PageAdminSearchCard
    Inherits System.Web.UI.Page

    Protected Sub cmdFind_Click(ByVal sender As Object, ByVal e As
System.EventArgs) Handles cmdFind.Click
        Dim c As New clsMySQL
        Dim f As New clsFunc
        Dim bl As New clsBL
        Dim mV As String

        'anixe tin syndesi
        mV = c.mOpenConnection()

        If mV <> "ok" Then
            Response.Write("<b>Error:" & mV & "</b>")
        End If

        Dim mCon As OdbcConnection

        mCon = c.mRetCon

        Dim dt As DataTable

        dt = c.mSelect("select * from creditcard where code=' " &
txtCode.Text.Trim & "' and typeid=2")

        If dt.Rows.Count = 0 Then
            Response.Write("<b>                               </b>")
        Else
            Session("EditCardCode") = txtCode.Text.Trim
            Response.Redirect("PageAdminEditCard.aspx")
        End If

    End Sub
End Class
```

Κώδικας σελίδας για δημιουργία Νέας Κάρτας - PageCreateNewCard.aspx

```
<%@ Page Language="VB" AutoEventWireup="false"
CodeFile="PageCreateNewCard.aspx.vb" Inherits="PageCreateNewCard" %>

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
```

```

</title></title>
</head>
<body>
<b> μ </b><br />
<b> μ μ ( ):</b><br />
<form id="form1" runat="server">

<div runat="server" id="divAccounts"></div>
<asp:Button ID="cmdSave" runat="server" Text=" " />
<asp:Button ID="cmdCancel" runat="server" Text=" " />
</form>
</body>
</html>

```

Κώδικας για δημιουργία Νέας Κάρτας - PageCreateNewCard.aspx

```

Imports System.Data
Imports System.Data.Odbc

Partial Class PageAdminSearchCard
    Inherits System.Web.UI.Page

    Protected Sub cmdFind_Click(ByVal sender As Object, ByVal e As
System.EventArgs) Handles cmdFind.Click
        Dim c As New clsMySQL
        Dim f As New clsFunc
        Dim bl As New clsBL
        Dim mV As String

        'anixe tin syndesi
        mV = c.mOpenConnection()

        If mV <> "ok" Then
            Response.Write("<b>Error:" & mV & "</b>")
        End If

        Dim mCon As OdbcConnection

        mCon = c.mRetCon

        Dim dt As DataTable

        dt = c.mSelect("select * from creditcard where code=' " &
txtCode.Text.Trim & "' and typeid=2")

        If dt.Rows.Count = 0 Then
            Response.Write("<b> </b>")
        Else
            Session("EditCardCode") = txtCode.Text.Trim
            Response.Redirect("PageAdminEditCard.aspx")
        End If

    End Sub
End Class

```

Κώδικας σελίδας για ανάληψη από ηλεκτρονική κάρτα - PageCreditCardWithDraw.aspx

```
<%@ Page Language="VB" AutoEventWireup="false"
CodeFile="PageCreditCardWithDraw.aspx.vb"
Inherits="PageCreditCardWithDraw" %>

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">

<html xmlns="http://www.w3.org/1999/xhtml">
<head id="Head1" runat="server">
    <title></title>
</head>
<body>
    <form id="form1" runat="server">
        <div>
            <b>
                μ -
                μ :</b>
            <div runat="server" id="divDebitCards"></div>
        </div>
        <asp:Button ID="cmdSave" runat="server" Text=" " />
        <asp:Button ID="cmdCancel" runat="server" Text=" " />
    </form>
</body>
</html>
```

Κώδικας για ανάληψη από ηλεκτρονική κάρτα - PageCreditCardWithDraw.aspx.vb

```
Imports System.Data
Imports System.Data.Odbc

Partial Class PageCreditCardWithDraw
    Inherits System.Web.UI.Page

    Protected Sub Page_Load(ByVal sender As Object, ByVal e As
System.EventArgs) Handles Me.Load

        Dim c As New clsMySQL
        Dim f As New clsFunc
        Dim mV As String

        'anixe tin syndesi
        mV = c.mOpenConnection()

        If mV <> "ok" Then
            Response.Write("<b>Error: " & mV & "</b>")
        End If

        Dim dt As DataTable

        'Pare tous logariasmous tou pelati kai emfanise tous
        dt = c.mSelect("select ac.id as accountid,ac.code,cc.code as
ccode,ac.recddate,ac.balance from customeraccount ca " & _
"left join account ac " & _
```

```

        "on ca.accountid=ac.id " & _
        "left join creditcard cc " & _
        "on ac.id=cc.accountid " & _
        "where ca.customerid=" & Session("CustomerID") & "
and " & _
        "cc.typeid=2")

Dim i As Integer
Dim mAccountsListHTML As String = ""

mAccountsListHTML = "<table border='0' width='100%'>" & _
        "<tr>" & _
        "<td><b>           μ </b></td>" & _
        "<td><b>           </b></td>" & _
        "<td><b>           </b></td>" & _
        "<td><b>           </b></td>" & _
        "</tr>" & _
        ""

For i = 0 To dt.Rows.Count - 1

    mAccountsListHTML += "<tr>" & _
        "<td>" & f.FixL(dt.Rows(i)("code"), 20) &
"</td>" & _
        "<td>" & f.FixL(dt.Rows(i)("ccode"), 20) &
"</td>" & _
        "<td>" & f.FixR(dt.Rows(i)("balance"), 15) &
"</td>" & _
        "<td>" & "<input type='radio'"
name='rdbAccount' value='" & dt.Rows(i)("code") & "'>" & "</td>" & _
        "</tr>"

Next

mAccountsListHTML += "</table><br>"

mAccountsListHTML += "<b>           :</b>"
mAccountsListHTML += "<input type='text' name='txtAmount'"

If dt.Rows.Count = 0 Then
    mAccountsListHTML = "<b>           </b>"
End If

divDebitCards.InnerHtml = mAccountsListHTML

End Sub

Protected Sub cmdCancel_Click(ByVal sender As Object, ByVal e As
System.EventArgs) Handles cmdCancel.Click
    Response.Redirect("PageCustomerDashboard.aspx")
End Sub

Protected Sub cmdSave_Click(ByVal sender As Object, ByVal e As
System.EventArgs) Handles cmdSave.Click

    Dim c As New clsMySQL
    Dim f As New clsFunc

```



```

Dim bl As New clsBL
Dim mV As String

'anixe tin syndesi
mV = c.mOpenConnection()

If mV <> "ok" Then
    Response.Write("<b>Error:" & mV & "</b>")
End If

Dim mCon As OdbcConnection

mCon = c.mRetCon

Dim mTrans As OdbcTransaction = Nothing
Try

    mTrans = mCon.BeginTransaction()

    Dim mAccountCode As String = Request.Form("rdbAccount")
    Dim mWidthDrawID As Long = bl.GetWithdrawTransactionID(c, mTrans)

    Dim mAmount As Double
    mAmount = Request.Form("txtAmount")

    If mAccountCode = "" Then
        Response.Write("<b>                μ -                </b>")
        mTrans.Rollback()
        Return
    End If

    If bl.CheckAccountHasBalace(mAccountCode, mAmount, c, mTrans) =
True Then 'eparki - kane apli analipsi
        bl.DoAccountWithdraw(mAccountCode, mAmount, mWidthDrawID, c,
mTrans)
    Else 'den eparki kane analipsi osa mporei kai ta ypoloipa kanta
danio

        '==pare to trexon ypoloipo tou loagariasmou
        Dim mBalance As Double
        mBalance = bl.RetAccountBalace(mAccountCode, c, mTrans)

        'ypologise poso einai to poso gia to danio pou perni na kalipsi
tin analipsi
        Dim mLoanAmount As Double
        If mBalance > 0 Then
            mLoanAmount = mAmount - mBalance
            mAmount = mBalance
        Else
            mLoanAmount = mAmount
            mAmount = 0
        End If

        mLoanAmount = Math.Round(mLoanAmount, 2)

        '==kane enimerosi tou daniou tou logariasmou
        bl.DoAccountAddLoanAmount(mAccountCode, mLoanAmount, c, mTrans)

```

```

        '==kane enimerosi tin analipsi apo ton logarismo
        bl.DoAccountWithdraw(mAccountCode, mAmount, mWidthDrawID, c,
mTrans)

    End If

    mTrans.Commit()

    Response.Write("<b>
        .
        </b>")

    Catch ex As Exception
        mTrans.Rollback()
        Response.Write("Error : " & ex.Message)
    End Try

End Sub

End Class

```

Κεντρική σελίδα Χρήστη - PageCustomerDashboard.aspx

```

<%@ Page Language="VB" AutoEventWireup="false"
CodeFile="PageCustomerDashboard.aspx.vb"
Inherits="PageCustomerDashboard" %>

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title></title>
    <style type="text/css">
        .style1
        {
            width: 100%;
        }
    </style>
</head>
<body>
    <form id="form1" runat="server">
    <div>

        <asp:Label ID="Label2" runat="server" Text="My Bank DashBoard
- "
            Font-Bold="True" Font-
Size="25pt"></asp:Label>&nbsp;<asp:Label ID="lblCustomerName"
            runat="server" Text="
            μ
            μ " Font-Bold="True"
Font-Size="25pt"></asp:Label>

    </div>
    <table class="style1">
    <tr>
    <td>
        <asp:Button ID="cmdCreateAccount" runat="server"

```

```

        Text="      μ      μ " />
<asp:Button ID="cmdCloseAccount" runat="server"
Text="      μ      μ " />
<asp:Button ID="cmdAccountTransfer" runat="server"
Text="      -      μ " />
<asp:Button ID="cmdCreateCard" runat="server"
Text="      μ      " />
<asp:Button ID="cmdDeleteCard" runat="server"
Text="      μ      " />
<asp:Button ID="cmdDebidCardWidthDraw" runat="server"
Text="      " />
<asp:Button ID="cmdCreditCardWithDraw" runat="server"
Text="      " />
<asp:Button ID="cmdLogOut" runat="server"
Text="      " />
    </td>
    <td>
    </td>
    <td>
    </td>
    <td>
    </td>
    </tr>
</table>

<div runat="server" id="divAccountsHeader" />
<div runat="server" id="divAccountsList" />
</form>
</body>
</html>

```

Κεντρική σελίδα Χρήστη - PageCustomerDashboard.aspx.vb

```

Imports System.Data
Imports System.Data.OleDb

Partial Class PageCustomerDashboard
    Inherits System.Web.UI.Page

    Protected Sub Button1_Click(ByVal sender As Object, ByVal e As
System.EventArgs) Handles cmdCreateAccount.Click

        Dim c As New clsMySQL
        Dim f As New clsFunc
        Dim mV As String

        'anixe tin syndesi
        mV = c.mOpenConnection()

        If mV <> "ok" Then
            Response.Write("<b>Error: " & mV & "</b>")
        End If

        'dimiourgise neo logarismo
        c.mCommand("insert into account " & _
            "(recdate) " & _

```

```

        "values " & _
        "(" & _
        "curdate()" & _
        ")")

'pare to telefteo id gia na ftiaxeis ton kodiko tou logariasmou
Dim mAccountID As Long
mAccountID = c.mLastInsertedID()

'enimerose kai ton kodiko tou logariasmou, kai episis me mena
tyxaio poso
Dim mCode As String
mCode = "330-00000-" & f.FixZero(mAccountID, 4)

Dim mAmount As Double
mAmount = f.GetRandom(500, 10000)

c.mCommand("update account " & _
           "set code='" & mCode & "'," & _
           "balance='" & f.cToDot(mAmount) & "' " & _
           "where ID = " & mAccountID)

'anixe kai ton logariasmo ston pinaka customeraccount
c.mCommand("insert into customeraccount " & _
           "(customerid,accountid) " & _
           "values " & _
           "(" & _
           "" & Session("CustomerID") & ", " & _
           "" & mAccountID & " " & _
           ")")

c = Nothing

Response.Redirect("PageCustomerDashboard.aspx")

End Sub

Protected Sub Page_Load(ByVal sender As Object, ByVal e As
System.EventArgs) Handles Me.Load

Dim c As New clsMySQL
Dim f As New clsFunc
Dim bl As New clsBL
Dim mV As String

'anixe tin syndesi
mV = c.mOpenConnection()

If mV <> "ok" Then
    Response.Write("<b>Error:" & mV & "</b>")
End If

Dim dt As DataTable

'Pare to onoma tou pelati
dt = c.mSelect("select * from customer where id=" &
Session("CustomerID"))

```

```

lblCustomerName.Text = dt.Rows(0)("lastname") & " " &
dt.Rows(0)("firstname")

'Pare tous logariasmous tou pelati kai emfanise tous
dt = c.mSelect("select ac.code,ac.recddate,ac.balance,ac.loanamount
from customeraccount ca " & _
"left join account ac " & _
"on ca.accountid=ac.id " & _
"where ca.customerid=" & Session("CustomerID"))

Dim i As Integer
Dim mAccountsListHTML As String = ""

mAccountsListHTML = "<table border='0' width='100%'" & _
" <tr>" & _
" <td><b>                μ </b></td>" & _
" <td><b>                </b></td>" & _
" <td><b>                </b></td>" & _
" <td><b>                </b></td>" & _
" <td><b>                </b></td>" & _
" </tr>" & _
""

For i = 0 To dt.Rows.Count - 1

'pare to id tou logariasmou
Dim mAccountID As Long
mAccountID = bl.RetAccountIDFromCode(dt.Rows(i)("code"), c)

Dim dtP As DataTable

'==vres an exi karta
dtP = c.mSelect("select cd.code as cdcode,ct.descr as ctdescr from
creditcard cd " & _
"left join creditcartype ct " & _
"on cd.typeid=ct.id " & _
"where " & _
"cd.accountid=" & mAccountID)

Dim mCardCode As String
Dim mCardType As String

If dtP.Rows.Count > 0 Then
mCardCode = dtP.Rows(0)("cdcode")
mCardType = dtP.Rows(0)("ctdescr")
Else
mCardCode = "-"
mCardType = "-"
End If

mAccountsListHTML += "<tr>" & _
" <td>" & f.FixL(dt.Rows(i)("code"), 20) &
"</td>" & _
" <td>" &

```

```

f.FixR(Math.Round(dt.Rows(i)("balance"), 2), 15) & "</td>" & _
    "<td>" &
f.FixR(Math.Round(dt.Rows(i)("loanamount"), 2), 15) & "</td>" & _
    "<td>" & f.FixL(mCardCode, 20) & "</td>" & _
    "<td>" & f.FixL(mCardType, 20) & "</td>" & _
    "</tr>"

Next

mAccountsListHTML += "</table><br>"

divAccountsList.InnerHtml = mAccountsListHTML

c = Nothing

End Sub

Protected Sub cmdAccountTransfer_Click(ByVal sender As Object, ByVal e As System.EventArgs) Handles cmdAccountTransfer.Click

    Response.Redirect("PageAccountTransfer.aspx")

End Sub

Protected Sub cmdCreateCard_Click(ByVal sender As Object, ByVal e As System.EventArgs) Handles cmdCreateCard.Click

    Response.Redirect("PageCreateNewCard.aspx")

End Sub

Protected Sub cmdDebidCardWidthDraw_Click(ByVal sender As Object, ByVal e As System.EventArgs) Handles cmdDebidCardWidthDraw.Click
    Response.Redirect("PageDebidCardWithDraw.aspx")
End Sub

Protected Sub cmdCreditCardWithDraw_Click(ByVal sender As Object, ByVal e As System.EventArgs) Handles cmdCreditCardWithDraw.Click
    Response.Redirect("PageCreditCardWithDraw.aspx")
End Sub

Protected Sub cmdDeleteCard_Click(ByVal sender As Object, ByVal e As System.EventArgs) Handles cmdDeleteCard.Click
    Response.Redirect("PageDeleteCard.aspx")
End Sub

Protected Sub cmdCloseAccount_Click(ByVal sender As Object, ByVal e As System.EventArgs) Handles cmdCloseAccount.Click
    Response.Redirect("PageDeleteAccount.aspx")
End Sub

Protected Sub cmdLogOut_Click(ByVal sender As Object, ByVal e As System.EventArgs) Handles cmdLogOut.Click
    Session("CustomerID") = ""
    Response.Redirect("Default.aspx")
End Sub
End Class

```

Κώδικας σελίδας εγγραφής χρήστη - PageCustomerRegister.aspx

```
<%@ Page Language="VB" AutoEventWireup="false"
CodeFile="PageCustomerRegister.aspx.vb"
Inherits="PageCustomerRegister" %>

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
  <title></title>
  <style type="text/css">
    .style1
    {
      width: 100%;
    }
    .style2
    {
    }
  </style>
</head>
<body>
  <form id="form1" runat="server">
  <div>

    <table class="style1">
      <tr>
        <td class="style2" colspan="2">
          <b>
            </b></td>
        </tr>
      <tr>
        <td class="style2">
          </td>
        <td>
          &nbsp;</td>
        </tr>
      <tr>
        <td class="style2">
          <b><asp:Label ID="Label1" runat="server"
Text="  μ "></asp:Label></b>
          </td>
          <td>
            <asp:TextBox ID="txtFirstName" runat="server"
Width="324px"></asp:TextBox>
          </td>
        </tr>
      <tr>
        <td class="style2">
          <b><asp:Label ID="Label2" runat="server"
Text="  "></asp:Label></b></td>
          <td>
            <asp:TextBox ID="txtLastName" runat="server"
Width="322px"></asp:TextBox></td>
        </tr>
      <tr>
        <td class="style2">
          <b><asp:Label ID="Label3" runat="server"
Text="  "></asp:Label></b></td>
          <td>
            <asp:TextBox ID="txtAddress" runat="server"

```

```

Width="322px"></asp:TextBox></td>
    </tr>
    <tr>
        <td class="style2">
            <b><asp:Label ID="Label4" runat="server"
Text=" .
            "></asp:Label></b></td>
        <td>
            <asp:TextBox ID="txtSSN"
runat="server"></asp:TextBox></td>
    </tr>
    <tr>
        <td class="style2">
            </td>
        <td>
            <asp:Button ID="cmdSave" runat="server"
Text="
            " />
            <asp:Button ID="cmdCancel" runat="server"
Text="
            " />
        </td>
    </tr>
</table>

</div>
</form>
</body>
</html>

```

Κώδικας εγγραφής χρήστη - PageCustomerRegister.aspx.vb

```

Imports System.Data
Imports System.Data.Odbc

Partial Class PageCustomerRegister
    Inherits System.Web.UI.Page

    Protected Sub cmdCancel_Click(ByVal sender As Object, ByVal e As
System.EventArgs) Handles cmdCancel.Click
        Response.Redirect("Default.aspx")
    End Sub

    Protected Sub cmdSave_Click(ByVal sender As Object, ByVal e As
System.EventArgs) Handles cmdSave.Click

        Dim c As New clsMySQL
        Dim mV As String

        'anixe tin syndesi
        mV = c.mOpenConnection()

        If mV <> "ok" Then
            Response.Write("<b>Error:" & mV & "</b>")
        End If

        'elenxe an yparxei hdh o pelatis
        Dim dt As DataTable
        dt = c.mSelect("select * from customer where ssn='" & txtSSN.Text &
"'")

```



```

If dt.Rows.Count > 0 Then
    Response.Write(" ")
    Exit Sub
End If

'dimiourgise ton pelati afou den yparxei
c.mCommand("insert into customer " & _
            "(firstname,lastname,address,ssn) " & _
            "values " & _
            "(" & _
            "'" & txtFirstName.Text & "'," & _
            "'" & txtLastName.Text & "'," & _
            "'" & txtAddress.Text & "'," & _
            "'" & txtSSN.Text & "'" & _
            ")")

c = Nothing

Response.Redirect("PageSuccesfullNewCustomer.aspx")

End Sub
End Class

```

Κώδικας σελίδας για ανάληψη από Πιστωτική κάρτα - PageDebidCardWithDraw.aspx

```

<%@ Page Language="VB" AutoEventWireup="false"
CodeFile="PageDebidCardWithDraw.aspx.vb"
Inherits="PageDebidCardWithDraw" %>

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title></title>
</head>
<body>
    <form id="form1" runat="server">
        <div>
            <b>
                μ -
            </b>
            <div runat="server" id="divDebitCards"></div>
        </div>
        <asp:Button ID="cmdSave" runat="server" Text=" " />
        <asp:Button ID="cmdCancel" runat="server" Text=" " />
    </form>
</body>
</html>

```

Κώδικας για ανάληψη από Πιστωτική κάρτα - PageDebidCardWithDraw.aspx.vb

```
Imports System.Data
Imports System.Data.Odbc

Partial Class PageDebidCardWithDraw
    Inherits System.Web.UI.Page

    Protected Sub Page_Load(ByVal sender As Object, ByVal e As
System.EventArgs) Handles Me.Load

        Dim c As New clsMySQL
        Dim f As New clsFunc
        Dim mV As String

        'anixe tin syndesi
        mV = c.mOpenConnection()

        If mV <> "ok" Then
            Response.Write("<b>Error:" & mV & "</b>")
        End If

        Dim dt As DataTable

        'Pare tous logariasmous tou pelati kai emfanise tous
        dt = c.mSelect("select ac.id as accountid,ac.code,cc.code as
ccode,ac.recdatetime,ac.balance from customeraccount ca " & _
            "left join account ac " & _
            "on ca.accountid=ac.id " & _
            "left join creditcard cc " & _
            "on ac.id=cc.accountid " & _
            "where ca.customerid=" & Session("CustomerID") & "
and " & _
            "cc.typeid=1")

        Dim i As Integer
        Dim mAccountsListHTML As String = ""

        mAccountsListHTML = "<table border='0' width='100%'>" & _
            "<tr>" & _
            "<td><b>                μ </b></td>" & _
            "<td><b>                </b></td>" & _
            "<td><b>                </b></td>" & _
            "<td><b>                </b></td>" & _
            "</tr>" & _
            ""

        For i = 0 To dt.Rows.Count - 1

            mAccountsListHTML += "<tr>" & _
                "<td>" & f.FixL(dt.Rows(i)("code"), 20) &
"</td>" & _
                "<td>" & f.FixL(dt.Rows(i)("ccode"), 20) &
"</td>" & _
```

```

" <td>" & f.FixR(dt.Rows(i)("balance"), 15) &
" </td>" & _
" <td>" & "<input type='radio'
name='rdbAccount' value='" & dt.Rows(i)("code") & "'>" & " </td>" & _
" </tr>"

Next

mAccountsListHTML += "</table><br>"

mAccountsListHTML += "<b>                               :</b>"
mAccountsListHTML += "<input type='text' name='txtAmount'>"

If dt.Rows.Count = 0 Then
    mAccountsListHTML = "<b>                               </b>"
End If

divDebitCards.InnerHtml = mAccountsListHTML

End Sub

Protected Sub cmdCancel_Click(ByVal sender As Object, ByVal e As
System.EventArgs) Handles cmdCancel.Click
    Response.Redirect("PageCustomerDashboard.aspx")
End Sub

Protected Sub cmdSave_Click(ByVal sender As Object, ByVal e As
System.EventArgs) Handles cmdSave.Click

    Dim c As New clsMySQL
    Dim f As New clsFunc
    Dim bl As New clsBL
    Dim mV As String

    'anixe tin syndesi
    mV = c.mOpenConnection()

    If mV <> "ok" Then
        Response.Write("<b>Error:" & mV & "</b>")
    End If

    Dim mCon As OdbcConnection

    mCon = c.mRetCon

    Dim mTrans As OdbcTransaction = Nothing
    Try

        mTrans = mCon.BeginTransaction()

        Dim mAccountCode As String = Request.Form("rdbAccount")
        Dim mWidthDrawID As Long = bl.GetWithdrawTransactionID(c, mTrans)

        Dim mAmount As Double
        mAmount = Request.Form("txtAmount")

        If mAccountCode = "" Then

```

```

Response.Write("<b>
mTrans.Rollback()
Return
End If

If bl.CheckAccountHasBalace(mAccountCode, mAmount, c, mTrans) =
False Then
Response.Write("<b>
</b>")
mTrans.Rollback()
Return
End If

bl.DoAccountWithdraw(mAccountCode, mAmount, mWidthDrawID, c,
mTrans)

mTrans.Commit()

Response.Write("<b>
.
</b>")

Catch ex As Exception
mTrans.Rollback()
Response.Write("Error : " & ex.Message)
End Try

End Sub
End Class

```

Κώδικας Σελίδας Διαγραφής Λογαριασμού - PageDeleteAccount.aspx

```

<%@ Page Language="VB" AutoEventWireup="false"
CodeFile="PageDeleteAccount.aspx.vb" Inherits="PageDeleteAccount" %>

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
<title></title>
</head>
<body>
<form id="form1" runat="server">
<div>
<b>
: </b>
<div runat="server" id="divDebitCards"></div>
</div>
<asp:Button ID="cmdSave" runat="server" Text="
" />
<asp:Button ID="cmdCancel" runat="server" Text="
" />
</div>
</form>
</body>
</html>

```



```

If dt.Rows.Count = 0 Then
    mAccountsListHTML = "<b>                                </b>"
End If

    divDebitCards.InnerHtml = mAccountsListHTML
End Sub

Protected Sub cmdSave_Click(ByVal sender As Object, ByVal e As
System.EventArgs) Handles cmdSave.Click
    Dim c As New clsMySQL
    Dim f As New clsFunc
    Dim bl As New clsBL
    Dim mV As String

    'anixe tin syndesi
    mV = c.mOpenConnection()

    If mV <> "ok" Then
        Response.Write("<b>Error:" & mV & "</b>")
    End If

    Dim mCon As OdbcConnection

    mCon = c.mRetCon

    Dim mTrans As OdbcTransaction = Nothing
    Try

        mTrans = mCon.BeginTransaction()

        Dim mAccountCode As String = Request.Form("rdbAccount")
        If mAccountCode = "" Then
            Response.Write("<b>                                μ </b>")
            mTrans.Rollback()
            Return
        End If

        bl.DeleteAccount(mAccountCode, c, mTrans)

        mTrans.Commit()

        Response.Write("<b>                                μ .
        </b>")

    Catch ex As Exception
        mTrans.Rollback()
        Response.Write("Error : " & ex.Message)
    End Try
End Sub

Protected Sub cmdCancel_Click(ByVal sender As Object, ByVal e As
System.EventArgs) Handles cmdCancel.Click
    Response.Redirect("PageCustomerDashboard.aspx")
End Sub
End Class

```

Κώδικας σελίδας διαγραφής κάρτας - PageDeleteCard.aspx

```
<%@ Page Language="VB" AutoEventWireup="false"
CodeFile="PageDeleteCard.aspx.vb" Inherits="PageDeleteCard" %>

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
<title></title>
</head>
<body>
<form id="form1" runat="server">
<div>
<b> μ </b>
<div runat="server" id="divDebitCards"></div>
</div>
<asp:Button ID="cmdSave" runat="server" Text=" " />
<asp:Button ID="cmdCancel" runat="server" Text=" " />
</div>
</form>
</body>
</html>
```

Κώδικας διαγραφής κάρτας - PageDeleteCard.aspx.vb

```
Imports System.Data
Imports System.Data.Odbc

Partial Class PageDeleteCard
Inherits System.Web.UI.Page

Protected Sub Page_Load(ByVal sender As Object, ByVal e As
System.EventArgs) Handles Me.Load
Dim c As New clsMySQL
Dim f As New clsFunc
Dim mV As String

'anixe tin syndesi
mV = c.mOpenConnection()

If mV <> "ok" Then
Response.Write("<b>Error: " & mV & "</b>")
End If

Dim dt As DataTable

'Pare tous logariasmous tou pelati kai emfanise tous
dt = c.mSelect("select ac.id as accountid,ac.code,cc.code as
ccode,ac.reccdate,ac.balance from customeraccount ca " & _
"left join account ac " & _
"on ca.accountid=ac.id " & _
```

```

        "left join creditcard cc " & _
        "on ac.id=cc.accountid " & _
        "where ca.customerid=" & Session("CustomerID"))

Dim i As Integer
Dim mAccountsListHTML As String = ""

mAccountsListHTML = "<table border='0' width='100%'>" & _
    "<tr>" & _
    "<td><b>                μ </b></td>" & _
    "<td><b>                </b></td>" & _
    "<td><b>                </b></td>" & _
    "<td><b>                </b></td>" & _
    "</tr>" & _
    ""

For i = 0 To dt.Rows.Count - 1

    If f.NullS(dt.Rows(i)("ccode")) <> "" Then
        mAccountsListHTML += "<tr>" & _
            "<td>" & f.FixL(dt.Rows(i)("code"), 20) &
"</td>" & _
            "<td>" & f.FixL(f.NullS(dt.Rows(i)("ccode")),
20) & "</td>" & _
            "<td>" &
f.FixR(f.mNullN(dt.Rows(i)("balance")), 15) & "</td>" & _
            "<td>" & "<input type='radio'
name='rdbAccount' value='" & dt.Rows(i)("code") & "'>" & "</td>" & _
            "</tr>"

        End If

    Next

mAccountsListHTML += "</table><br>"

If dt.Rows.Count = 0 Then
    mAccountsListHTML = "<b>                </b>"
End If

divDebitCards.InnerHtml = mAccountsListHTML

End Sub

Protected Sub cmdCancel_Click(ByVal sender As Object, ByVal e As
System.EventArgs) Handles cmdCancel.Click
    Response.Redirect("PageCustomerDashboard.aspx")
End Sub

Protected Sub cmdSave_Click(ByVal sender As Object, ByVal e As
System.EventArgs) Handles cmdSave.Click
    Dim c As New clsMySQL
    Dim f As New clsFunc
    Dim bl As New clsBL
    Dim mV As String

'anixe tin syndesi

```



```

mV = c.mOpenConnection()

If mV <> "ok" Then
    Response.Write("<b>Error:" & mV & "</b>")
End If

Dim mCon As OdbcConnection

mCon = c.mRetCon

Dim mTrans As OdbcTransaction = Nothing
Try

    mTrans = mCon.BeginTransaction()

    Dim mAccountCode As String = Request.Form("rdbAccount")
    If mAccountCode = "" Then
        Response.Write("<b>                               </b>")
        mTrans.Rollback()
        Return
    End If

    bl.DeleteCreditCard(mAccountCode, c, mTrans)

    mTrans.Commit()

    Response.Write("<b>                               </b>")

Catch ex As Exception
    mTrans.Rollback()
    Response.Write("Error : " & ex.Message)
End Try

End Sub
End Class

```

Κώδικας επιτυχούς δημιουργίας χρήστη - PageSuccessfulNewCustomer.aspx

```

<%@ Page Language="VB" AutoEventWireup="false"
CodeFile="PageSuccessfulNewCustomer.aspx.vb"
Inherits="PageSuccessfulNewCustomer" %>

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title></title>
</head>
<body>
    <form id="form1" runat="server">
        <div>

```

```
                <br />
                <asp:Button ID="cmdContinue" runat="server" Text="      "
/>
        </div>
    </form>
</body>
</html>
```

Κώδικας δημιουργίας χρήστη - PageSuccessfulNewCustomer.aspx.vb

```
Partial Class PageSuccessfulNewCustomer
    Inherits System.Web.UI.Page

    Protected Sub cmdContinue_Click(ByVal sender As Object, ByVal e As
System.EventArgs) Handles cmdContinue.Click
        Response.Redirect("default.aspx")
    End Sub
End Class
```


-
- :
1. <http://el.wikipedia.org/wiki/%CE%A0%CF%8D%CE%BB%CE%B7:%CE%9A%CF%8D%CF%81%CE%B9%CE%B1>
 2. <http://www.wlearn.gr/index.php/html-html-32>
 3. <http://el.wikipedia.org/wiki/JavaScript>
 4. <http://el.wikipedia.org/wiki/JavaScript>
 5. <http://www.mysql.com/training/>
 6. <http://www.w3schools.com/asp/default.asp>
 7. <http://www.webwiz.co.uk/kb/asp-tutorials/what-is-asp.htm>
 8. <http://webdesign.about.com/od/asp/a/aa040201a.htm>
 9. <http://www.apachefriends.org/en/xampp-windows.html>
 10. <http://web-seminar.softlab.ntua.gr/resources/phpmyadmin/>
 11. <http://www.perl.org/>
 12. <http://el.wikipedia.org/wiki/Perl>
 13. Java προγραμματισμός, [Deitel, Paul J.](#), Εκδόσεις: [Γκιούρδας Μ.](#), Μάρτιος, 2010
 14. Προγραμματισμός Internet και World Wide Web, [Deitel, Paul J.](#), Εκδόσεις: [Γκιούρδας Μ.](#), Ιανουάριος, 2011
 15. Μάθετε PHP, MySQL και Apache, [Melonie, Julie C.](#), Εκδόσεις: [Γκιούρδας Μ.](#), Σεπτέμβριος, 2008
 16. Εισαγωγή Στην Java 2, Γιώργος Λιακέας, Εκδόσεις:Κλειδάριθμος, Έτος 2007
 18. Εισαγωγή στα συστήματα Βάσεων Δεδομένων, C.J.DATE, Εκδόσεις:Κλειδάριθμος, Έτος 2006
 19. Microsoft ASP.NET Προγραμματισμός με τη Microsoft Visual Basic .Net, G.Andrew Duthie, Εκδόσεις: Κλειδάριθμος, Έτος 2003