

Use Case 1: Banking Application

You have to build a customer's experience with Bank Accounts

Admin Roles

- The admin's details will be in database first hand.
- The admin can login with username and password
- The admin should register a customer with the following details:
 - Full name
 - Address
 - Mobile No
 - Email id
 - Type of account – Either Saving Account or Current Account
 - Initial Balance (min 1000)
 - Date of Birth
 - Id proof
- As a result, the customer must be registered with the bank and an Account no should be generated for the customer's account. A temporary password should also generate
- The admin should be able to add/delete/modify/see customer details, however the password and balance MUST NOT be visible to the admin

Customer Roles

- Customer registration is done by admin. After registration the generated account no and password should be given by admin to customer.
- With the help of account no and password, the customer should be able to set up a new password.
- After the new password is set, the customer can log in with account no and password
- The customer should be able to logout
- After login customer should come to customer dashboard page where the created account is displayed along with balance
- Clicking on View will display last 10 transactions in increasing/decreasing order of date.
- Clicking on Deposit will open a dialogue box where customer can put the amount and click submit. The balance will increase and the transaction must be saved in the database
- Clicking on Withdraw will open a dialogue box where customer can put the amount and click submit. The balance will decrease and the transaction must be saved in the database
- The customer can maintain 0 balance, but not below that
- The customer should be able to close the account on solo basis – no admin required
- The customer can close the account only after withdrawing all the money.

Bonus Functionality

- The customer should be able to download a PDF of last 10 transactions by clicking Print in the mini statement.

Instructions:

- You have to use Eclipse IDE, Tomcat 9 Server, MySQL Server and MySQL Workbench
- Do not focus too much on UI, focus more on completing end-to-end functionality
- After initial analysis, have a quick session with mentors to clarify the requirements
- Prepare a BOM (Bill of Materials) i.e., a list of software & hardware to be used
- Design and implement a well-modularized code
- Design a normalized database schema
- Only authenticated users should be allowed to access the application

Banking Application

Customer



Admin



Admin login page

Enter the username

Enter the password

Admin name: ponnulingam
logout

Admin controls

Create account

Controls

back

Admin name: ponnulingam

logout

Create Customer Account Form

Enter the full name

Customer

Enter the address

Dubai kurukku sandhu, Dubai main road, Dubai.

Enter the phone number

8754052365

Enter the email id

ponnulingam56@gmail.com

choose the account type

CurrentAccount ☐ SavingsAccount ☒

Initial balance amount

10000

Enter the date of birth

Enter the email id

ponnulingam56@gmail.com

choose the account type

CurrentAccount ☐ SavingsAccount ☒

Initial balance amount

10000

Enter the date of birth

15 - 11 - 2024

Choose the id proof

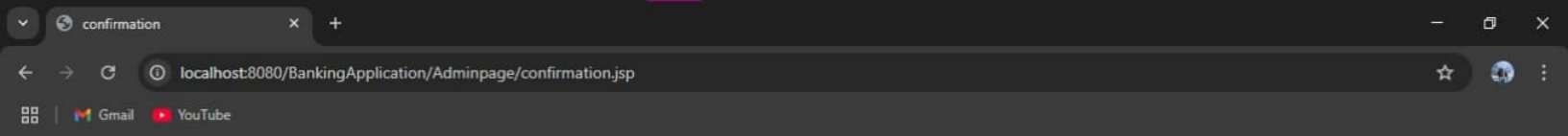
Driving license

Choose File 2711_uhd.jpg

choose the file(only support jpg and png format)

submit

back



Admin name: ponnulingam

logout

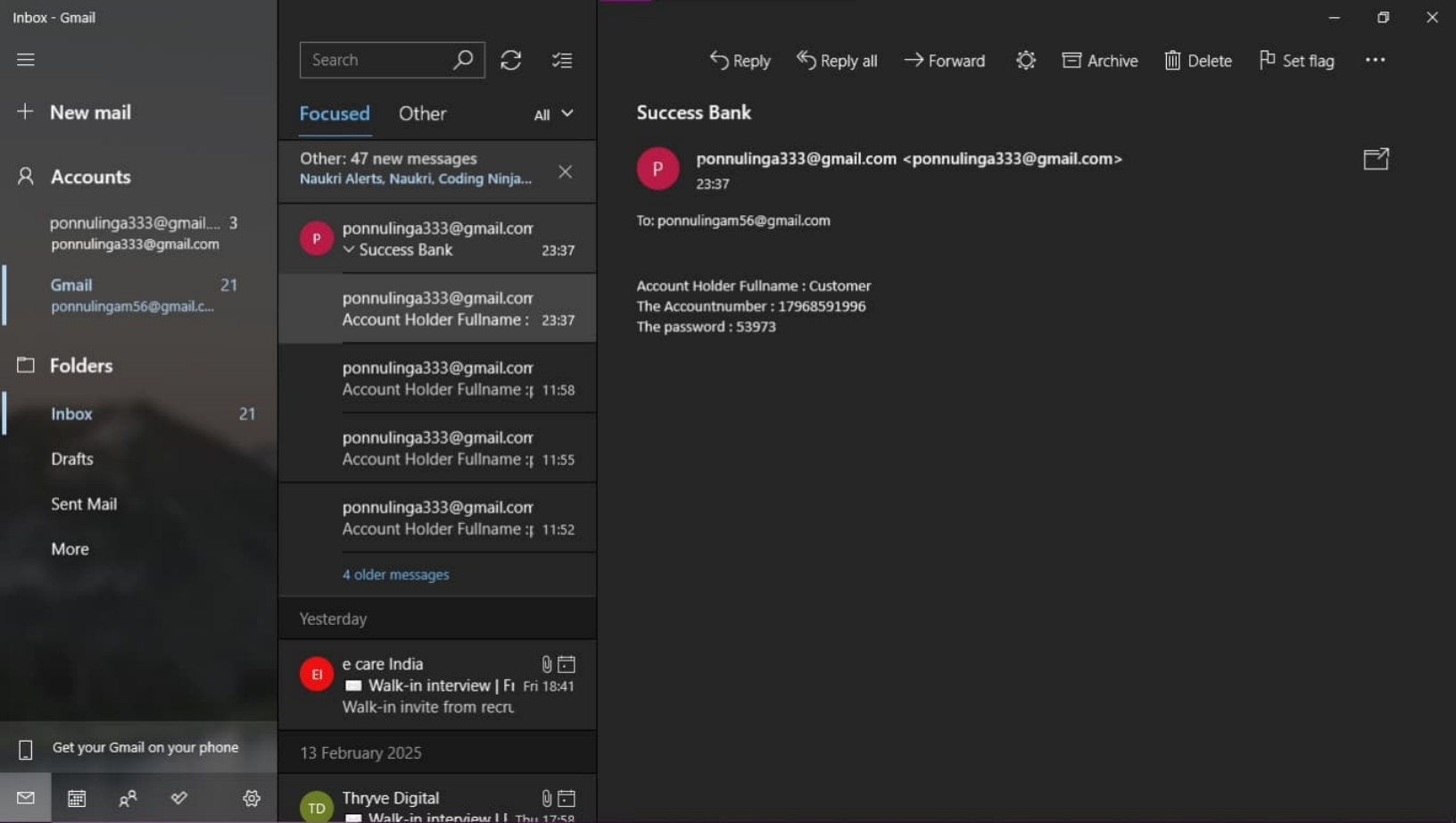
Account Created Successfully

Customer name : Customer

Customer Accountnumber : 17968591996

Customer password : 53973

back



Admin name: ponnulingam

logout

Admin Controls

To delete the customer:

Enter the account no

Enter the customer fullname

Submit

To see the customer information:

Enter the account no

Enter the customer fullname

Enter the customer fullname

Submit

To see the customer information:

Enter the account no

Enter the customer fullname

Submit

To update the customer information:

Update

back

Customer Information

Fullname : Customer
Address : Dubai kurukku sandhu,Dubai main road,Dubai.
Phoneno : 8754052365
Emailid : ponnulingam56@gmail.com
Accounttype : SavingsAccount
Date : 15-11-2024
Idproof : Drivinglicense
Bloboutput\Customer.jpg



Accountnumber : 17968591996
Bankname : Success Bank

[back](#)

Admin name: ponnulingam

logout

Update customer details

Enter the Account no(which you want to update)

17968591996

Enter the full name

newcustomer

Enter the address

Dubai kurukku sandhu, Dubai main
road, Dubai.

Enter the phone number

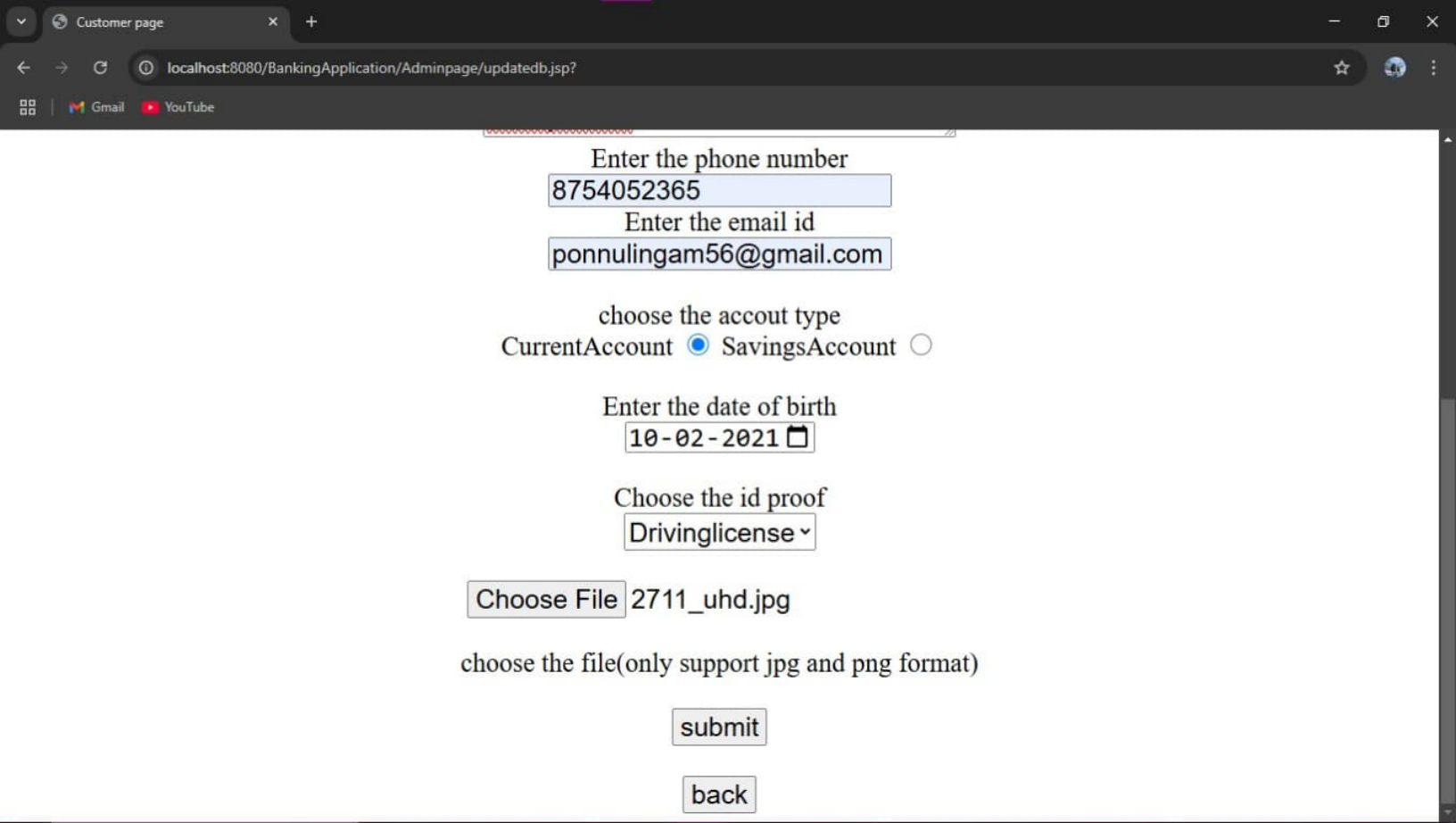
8754052365

Enter the email id

ponnulingam56@gmail.com

choose the account type

CurrentAccount ☒ SavingsAccount ☐



Enter the phone number

8754052365

Enter the email id

ponnulingam56@gmail.com

choose the accout type

CurrentAccount ☒ SavingsAccount ☐

Enter the date of birth

10-02-2021

Choose the id proof

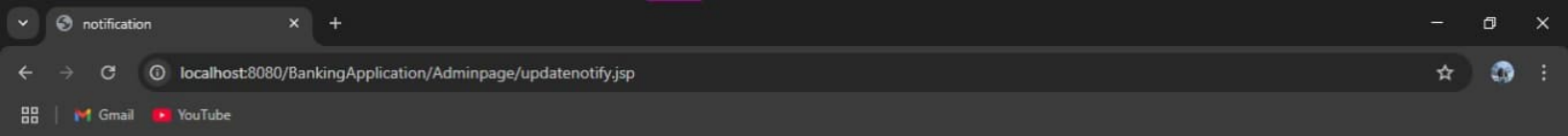
Drivinglicense

Choose File 2711_uhd.jpg

choose the file(only support jpg and png format)

submit

back



Account updated successfully

Customer new password is : 20266

back



+ New mail



Accounts

ponnulinga333@gmail.... 3
ponnulinga333@gmail.com

Gmail 22
ponnulingam56@gmail.c...



Folders

Inbox 22

Drafts

Sent Mail

More



Get your Gmail on your phone



Search



Focused


Other

All ▾

Other: 47 new messages
Naukri Alerts, Naukri, Coding Ninja...



Yesterday

 ponnulinga333@gmail.cor
Success Bank 00:05

ponnulinga333@gmail.cor
The new password is :20261 00:05

ponnulinga333@gmail.c
Account Holder Fullnarr Sat 23:37


ponnulinga333@gmail.c
Account Holder Fullnarr Sat 11:58

ponnulinga333@gmail.c
Account Holder Fullnarr Sat 11:55

ponnulinga333@gmail.c
Account Holder Fullnarr Sat 11:52

4 older messages

14 February 2025

 e care India
Walk-in interview | Fri 18:41
Walk-in invite from re...



↩ Reply

↩ Reply all

→ Forward



📁 Archive

🗑 Delete

🚩 Set flag



Success Bank

 ponnulinga333@gmail.com <ponnulinga333@gmail.com>
00:05



To: ponnulingam56@gmail.com

The new password is :20266

Customer login

Enter the accountnumber

17968591996

Enter the password

20266

submit

back

Customer name: newcustomer
Account number: 17968591996
logout

Cutomer Dashboard

Customer Dashboard

Changepassword

Deposit

Withdraw

View

CloseAccount

back

Customer Dashboard

Fullname : newcustomer
Address : Dubai kurukku sandhu,Dubai main road,Dubai.
Phoneno : 8754052365
Emailid : ponnulingam56@gmail.com
Accounttype: CurrentAccount
Amount: 10000 Rs
Date: 10-02-2021
Idproof: Drivinglicense
Bloboutput\newcustomer.jpg



Accountnumber: 17968591996
Bankname: Success Bank

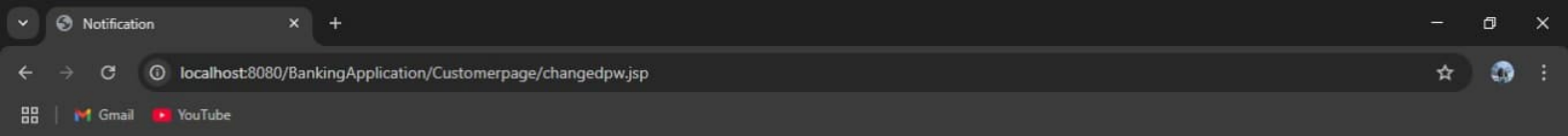
back

Change password

Enter the accountnumber

Enter the password

Enter the new password



Password Changed Successfully!

New password is : changedpassword

[back](#)



+ New mail



Accounts

ponnulinga333@gmail.... 3
ponnulinga333@gmail.com

Gmail 22
ponnulingam56@gmail.c...



Folders

Inbox 22

Drafts

Sent Mail

More



Get your Gmail on your phone




Focused

Other

All

Other: 47 new messages
Naukri Alerts, Naukri, Coding Ninja...

Yesterday

 ponnulinga333@gmail.cor
Success Bank 00:12

ponnulinga333@gmail.cor
Account Holder Fullname : 00:12

ponnulinga333@gmail.cor
The new password is :20261 00:05

ponnulinga333@gmail.c
Account Holder Fullnarr Sat 23:37

ponnulinga333@gmail.c
Account Holder Fullnarr Sat 11:58

ponnulinga333@gmail.c
Account Holder Fullnarr Sat 11:55

ponnulinga333@gmail.c
Account Holder Fullnarr Sat 11:52

[4 older messages](#)

14 February 2025



Reply



Reply all



Forward



Archive



Delete



Set flag



Success Bank



ponnulinga333@gmail.com <ponnulinga333@gmail.com>
00:12

To: ponnulingam56@gmail.com

Account Holder Fullname : newcustomer
The Accountnumber : 17968591996
The old password : 20266
The new password : changedpassword



Customer login

Enter the accountnumber

Enter the password

Customer name: newcustomer
Account number: 17968591996
logout

Cutomer Dashboard

- Customer Dashboard
- Changepassword
- Deposit
- Withdraw
- View
- CloseAccount
- back

Deposit

Enter the amount

submit

back

Amount added successfully

Deposit amount : 50000
The Account balance is : 60000

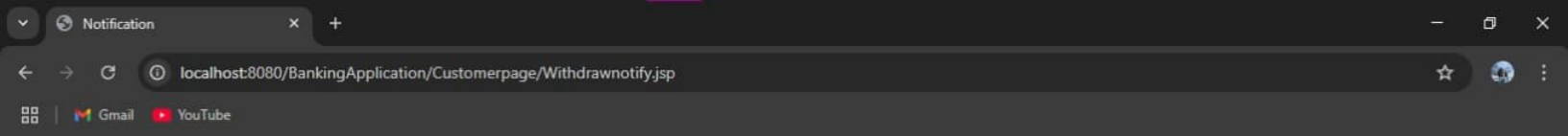
back

Withdraw

Enter the amount

submit

back



Amount withdraw successfully

Withdraw amount : 40000
The Account balance is : 20000

back

PDF created successfully

17968591996.pdf 1 / 1 - 43% +

Success Bank

Customer Name : newcustomer
Customer AccountNumber : 17968591996
Customer Phone Number : 8754052365
Customer Email-id : ponnurajgandhi@gmail.com
Customer Address : Dubai kurukku sandhu, Dubai main road, Dubai.

Date and Time : 16-02-2025 00:19:36

10 Transactions of the Customer

S.NO	DATE AND TIME	WITHDRAW	DEPOSIT
1	16-02-2025 00:19:02	40000	
2	16-02-2025 00:17:53		50000

Total Withdrawal : 40000
Total Deposit : 50000
CurrentAccountBalance is : 20000

back

Success Bank

Date and Time : 16-02-2025 00:19:36

Customer Name : newcustomer
Customer Accountnumber : 17968591996
Customer Phone Number : 8754052365
Customer Email-Id : ponnulingam56@gmail.com
Customer Address : Dubai kurukku sandhu,Dubai main road,Dubai.

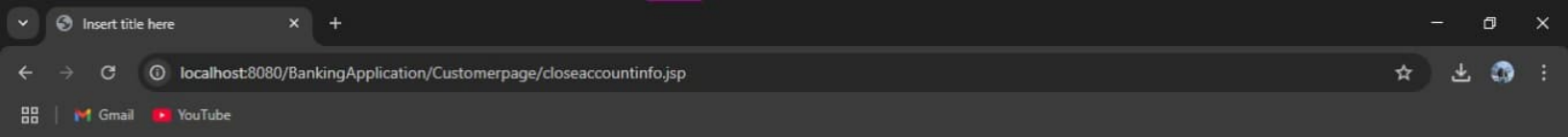
10 Transactions of the Customer

S.NO	DATE AND TIME	WITHDRAW	DEPOSIT
1	16-02-2025 00:19:02	40000	
2	16-02-2025 00:17:53		50000

Total Withdrawal : 40000

Total Deposit : 50000

CurrentAccountBalance Is : 20000



**You can only close the amount after withdraw
all the amount!**

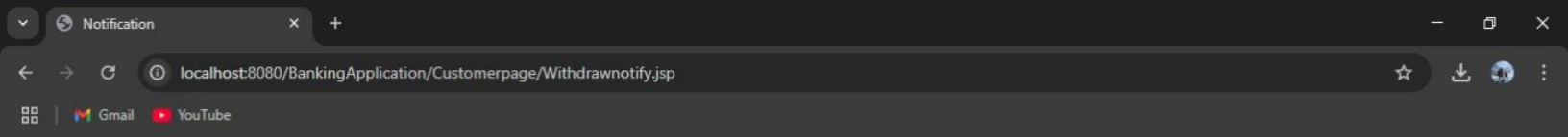
back

Withdraw

Enter the amount

submit

back



Amount withdraw successfully

Withdraw amount : 20000

The Account balance is : 0

back

PDF created successfully

17968591996.pdf 1 / 1 43%

Success Bank

Date and Time : 16-02-2025 00:24:59

Customer Name : newcustomer
Customer Accountnumber : 17968591996
Customer Phone Number : 8754052365
Customer Email-id : ponnulingam56@gmail.com
Customer Address : Dubai kurukku sandhu,Dubai main road,Dubai.

10 Transactions of the Customer

S.NO	DATE AND TIME	WITHDRAW	DEPOSIT
1	16-02-2025 00:24:17	20000	
2	16-02-2025 00:19:02	40000	
3	16-02-2025 00:17:53		50000

Total Withdrawal : 60000
Total Deposit : 50000

CurrentAccountBalance is : 0

back

Success Bank

Date and Time : 16-02-2025 00:24:59

Customer Name : newcustomer

Customer Accountnumber : 17968591996

Customer Phone Number : 8754052365

Customer Email-Id : ponnulingam56@gmail.com

Customer Address : Dubai kurukku sandhu,Dubai main road,Dubai.

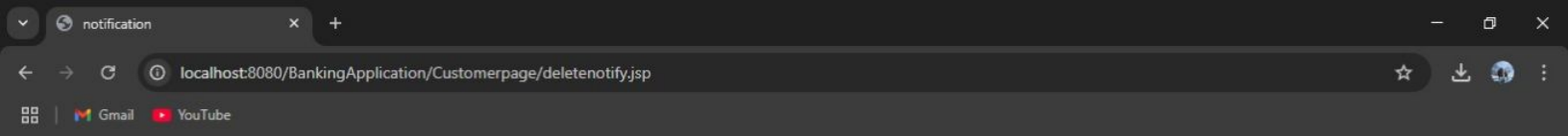
10 Transactions of the Customer

S.NO	DATE AND TIME	WITHDRAW	DEPOSIT
1	16-02-2025 00:24:17	20000	
2	16-02-2025 00:19:02	40000	
3	16-02-2025 00:17:53		50000

Total Withdrawal : 60000

Total Deposit : 50000

CurrentAccountBalance Is : 0



Account Closed Sucessfully

back

Backup files - BankingApplication/src/main/webapp/Frontpage/index.jsp - Eclipse IDE

File Edit Navigate Search Project Run Window Help

Project Explorer

- BankingApplication
 - Deployment Descriptor: Archety...
 - Java Resources
 - src/main/java
 - Deployment Descriptor: Ar...
 - com.backend
 - Deployment Descriptor:
 - changepassword.java
 - closeAccount.java
 - createaccount.java
 - customerchecker.java
 - customerinformation.java
 - delete.java
 - Deposit.java
 - printstatement.java
 - SendEmail.java
 - updatechecker.java
 - withdraw.java
 - com.backend.test.java
 - com.backend.test.resource
 - com.bank.application
 - Deployment Descriptor:
 - DAO.java
 - DBconnection.java
 - verificator.java
 - src/main/resources
 - src/test/java
 - src/test/resources
 - Libraries
 - Referenced Libraries
 - Deployed Resources
 - src
 - main
 - java

index.jsp

```
22 text-align:center;}</style></head>
23<body>
24<div class="head">
25 <h1>Banking Application</h1>
26 </div>
27<div class="main" style="margin:0 auto;width:65%">
28<div class="ad">
29<form action="..\Adminpage\adminlogin.jsp">
30 <label for="admin"> Admin </label>
31 <input type="image" src="photo Lib\Admin Logo.png" name="admin" id="admin" width="200">
32 </form></div>
33<div class="ad">
34<form action="..\Customerpage\customerlogin.jsp">
```

Console

Tomcat v9.0 Server at localhost [Apache Tomcat] C:\Users\PONNULINGAM.p2\pools\plugins\org.eclipse.justi.openjdk.hotspot.jre.full.win32.x86_64.23.0.2.v20250131-0604\jre\bin\javaw.exe (16 Feb 2025, 12:00:00)

```
ponnulingam
king
true
called displayinfo
called displayinfo
newcustomer
Dubai kurukku sandhu,Dubai main Road, Dubai.
D:\temporaryserver\2711_uhd.jpg
true
true
true
Bloboutput\newcustomer.jpg
```

Project Explorer

- BankingApplication
 - Deployment Descriptor: Archety
 - Java Resources
 - src/main/java
 - Deployment Descriptor: Ar
 - com.backend
 - Deployment Descriptor:
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 - DAO.java
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 - verificator.java
 - src/main/resources
 - src/test/java
 - src/test/resources
 - Libraries
 - Referenced Libraries
 - Deployed Resources
 - src
 - main
 - java

index.jsp updatedb.jsp updatecheck... DAO.java SendEmail.java Data Source... Progress Console Package Expl...

Tomcat v9.0 Server at localhost [Apache Tomcat] C:\Users\PONNULINGAM.p2\pool\plugins\org.eclipse.justi.openjdk.hotspot.jre.full.win32.x86_64_23.0.2.v20250131-0604\jre\bin\javaw.exe (16 Feb 2025, 12:00:00)

```
true
true
Bloboutput\newcustomer.jpg
newcustomer
Dubai kurukku sandhu,Dubai main road,Dubai.
8754052365
ponnulingam56@gmail.com
2021-02-10
Wed Feb 10 00:00:00 IST 2021
Drivinglicense
org.apache.catalina.core.ApplicationPart@46dcdf84
2711_uhd.jpg
true
D:\temporaryserver\2711_uhd.jpg
newcustomer
Dubai kurukku sandhu,Dubai main Road, Dubai.
D:\temporaryserver\2711_uhd.jpg
true
true
true
Bloboutput\newcustomer.jpg
17968591996
Number of rows affected is: 1
Number of rows affected is: 1
number of rows affected is: 1
Number of rows affected is : 1
email sent successfullv
```

Project Explorer

- BankingApplication
 - Deployment Descriptor: Archety...
 - Java Resources
 - src/main/java
 - Deployment Descriptor: Ar...
 - com.backend
 - Deployment Descriptor:
 - changePassword.java
 - closeAccount.java
 - createAccount.java
 - customerChecker.java
 - customerInformationJa...
 - delete.java
 - Deposit.java
 - printStatement.java
 - SendEmail.java
 - updateChecker.java
 - withdraw.java
 - com.backend.test.java
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 - src/test/java
 - src/test/resources
 - Libraries
 - Referenced Libraries
 - Deployed Resources
 - src
 - main
 - java

Tomcat v9.0 Server at localhost [Apache Tomcat] C:\Users\PONNULINGAM.p2\pool\plugins\org.eclipse.justi.openjdk.hotspot.jre.full.win32.x86_64_23.0.2.v20250131-0604\jre\bin\javaw.exe (16 Feb 2025, 12:00:00)

```
newcustomer
called the printstatement
called displayinfo
newcustomer
Dubai kurukku sandhu,Dubai main road,Dubai.
D:\temporaryserver\2711_uhd.jpg
true
true
true
Bloboutput\newcustomer.jpg
Deposit amount50000
2
PDF generated successfully!
newcustomer
newcustomer
newcustomer
newcustomer
called the deposit servlet
17968591996,changedpassword
true
true
true
Number of rows affected is :1
Number of rows affected is: 1
newcustomer
newcustomer
called the printstatement
```

Project Explorer

- BankingApplication
 - Deployment Descriptor: Archety
 - Java Resources
 - src/main/java
 - Deployment Descriptor: Ar
 - com.backend
 - Deployment Descriptor:
 - changepassword.java
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 - createaccount.java
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 - Deployment Descriptor:
 - DAO.java
 - DBconnection.java
 - verificator.java
 - src/main/resources
 - src/test/java
 - src/test/resources
 - Libraries
 - Referenced Libraries
 - Deployed Resources
 - src
 - main
 - java

index.jsp updatedb.jsp updatecheck... DAO.java SendEmail.java Data Source... Progress Console Package Expl...

Tomcat v9.0 Server at localhost [Apache Tomcat] C:\Users\PONNULINGAM.p2\pool\plugins\org.eclipse.justi.openjdk.hotspot.jre.full.win32.x86_64_23.0.2.v20250131-0604\jre\bin\javaw.exe (16 Feb 2025, 12:00:00)

```
D:\temporaryserver\2711_uhd.jpg
true
true
true
true
Bloboutput\newcustomer.jpg
Deposit amount50000
2
PDF generated successfully!
newcustomer
newcustomer
called the printstatement
called displayinfo
newcustomer
Dubai kurukku sandhu,Dubai main road,Dubai.
D:\temporaryserver\2711_uhd.jpg
true
true
true
Bloboutput\newcustomer.jpg
Deposit amount50000
2
PDF generated successfully!
newcustomer
newcustomer
Number of rows affected is: 1
Number of rows affected is: 1
```


SCHEMAS

Filter objects

- admin
- aliendb
- bankingapplication**
 - Tables
 - Views
 - Stored Procedure:
 - Functions
- busreservation
- empdao
- imagedb
- jdbcdemo
- lingam
- logindemo2
- retailstoredb

Administration Schemas

Information

No object selected

```
1 create database bankingapplication;
2
3 use bankingapplication;
4 show tables;
5
6 create table admin_info(
7     username varchar(30),
8     pass varchar(20),
```

Result Grid Filter Rows: Export: Wrap Cell Content:

Full_name	Address	Mobile_No	Emailid	Type_of_account	Initial_Balance	DateofBirth	Id_proof
fdas	das	2342	fdsf.@gmail.com	CurrentAccount	524	2024-11-09	Drivinglicense
vinto	dubai kurukku sandthu	12321223432	vinoth@gmail.com	CurrentAccount	24322	2024-11-08	Drivinglicense
singam	jldajf	9342588401	ponnulingam56@gmail.com	CurrentAccount	10000	2024-11-15	Drivinglicense
new customer	morai	8754052365	ponnulingam56@gmail.com	CurrentAccount	10000	2024-11-08	Drivinglicense
newcustomer 1	fdasf	9342588401	abcdef@gmail.com	CurrentAccount	10000	2024-11-08	Drivinglicense
ponnulingam	new colony morai	8754052365	ponnulingam56@gmail.com	CurrentAccount	10000	2024-11-08	Drivinglicense
Ponnulingam	new colony,Morai.	8754052365	ponnulingam56@gmail.com	CurrentAccount	10000	2024-11-16	Drivinglicense
Ponnulingam	new colony,Morai.	8754052365	ponnulingam56@gmail.com	CurrentAccount	10000	2024-11-16	Drivinglicense
ponnulingam	fjklda	23432342	ponnulingam56@gmail.com	CurrentAccount	10000	2024-11-16	Drivinglicense
ponnulingam	hjhghj	9342588401	ponnulinga333@gmail.com	CurrentAccount	10000	2024-11-16	Drivinglicense
ponnulingam	kjhkhkhk	8754052365	ponnulingam56@gmail.com	CurrentAccount	10000	2024-11-09	Drivinglicense
ponnulingam	kihkhkhk	8754052365	ponnulingam56@gmail.com	CurrentAccount	10000	2024-11-09	Drivinglicense

customerinfo 1 x

Output

Action Output

#	Time	Action
1	00:37:31	use bankingapplication

Message
0 row(s) affected

Duration / Fetch
0.000 sec

Read Only



Result Grid

Form
Editor

Field Types

Query
Stats

