DATABASE 4 ASSIGNMENT #2

Bank of Rory Database using MySQL and NoSQL

DECEMBER 7, 2014

RORY NEE

A00190040

Contents

Outline of the system

The system that I have made is a banking system called "Bank of Rory". This system could be used in a bank together with some kind of cash dispensing facility attached to it.

This system was built in PHP using the Slim Framework. The Slim Framework is a restful API. You will notice that throughout this system the URL are always restful. The main index.php file serves as a routing file for Slim and this file connects the URL's with the function need to load them. These function are in the function.php, access.php and static_fn.php files.

There are two database PHP file include in the top section of the index file. These both show the database connection in a class using a singleton pattern. I have used this to stop multiple connection object being generated.

This system also used a MySQL database and a NoSQL (Mongodb) database. For information on how to start the project please view the "Running Bank of Rory" section.

There are three different types of user roles incorporated into the system.

Role 1: A Normal user role has access to creating an account, doing various updates including making a withdrawal, depositing money and updating their own account information. The user will also be able view recent transaction on the "Show history" page and the user can delete their account. By doing a delete they will fully delete any record of their account. A user can also view tickets (customer support enquire) and open tickets. The ticket system data is stored in the NoSQL database.

Role 2: The Support Staff role has access to the ticketing system mentioned above. They can answer tickets and change the status of the tickets. They are also able to delete tickets once they are "closed". They have limited access to the accounts but will need it to be able to investigate any problems in the accounts. Support staff will be able to update personal information but will not be able to change the status of an account or update the balance of an account.

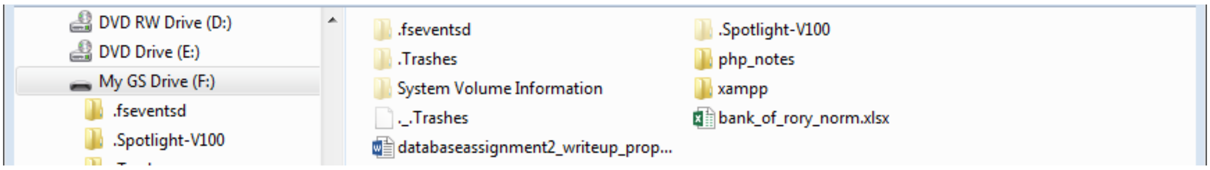
Role 3: The Admin role will have complete access to all accounts and ticket system. The Admin role can update their own account and also add new accounts. The Admin role can also See the History, update account types and update the balance of an account but a record of the change to a balance will be kept in the "history" for that user.

The administrator will have the only access to the report feature on the website. There will be five reports available that access information for all the tables in the database. The fifth report includes data from both databases in the report showing how many tickets each customer has sent in to the support staff.

Running Bank of Rory

The system is inside a Uniform XAMPP server. This server starts as usual. The NoSQL demon starts by running a bat file called "mongostartdemon.bat". To close the Mongodb Demon press ctrl c and y for yes. I have created this for ease of use and it can be found in the main xamp folder. The version of Mongodb is the 64bit version.

The index.php file is stored at the following location "xampp\htdocs\bankofrory". The following URL will load the home page "http://localhost/bankofrory/". Please see the file structure below to be able to replicate the system.



Explored view of the file system

The NoSQL database can be accessed on command line using the "mongostart.bat" file in the "mongodb" folder.

I have tried my project on a pc in the games lab (X207) and all worked well. I have also tried it on a friends Laptop and all worked. I do think you will need a 64 bit machine to run it. If you use a 32 bit machine the Mongodb part of the project will not work on a 32 bit machine.

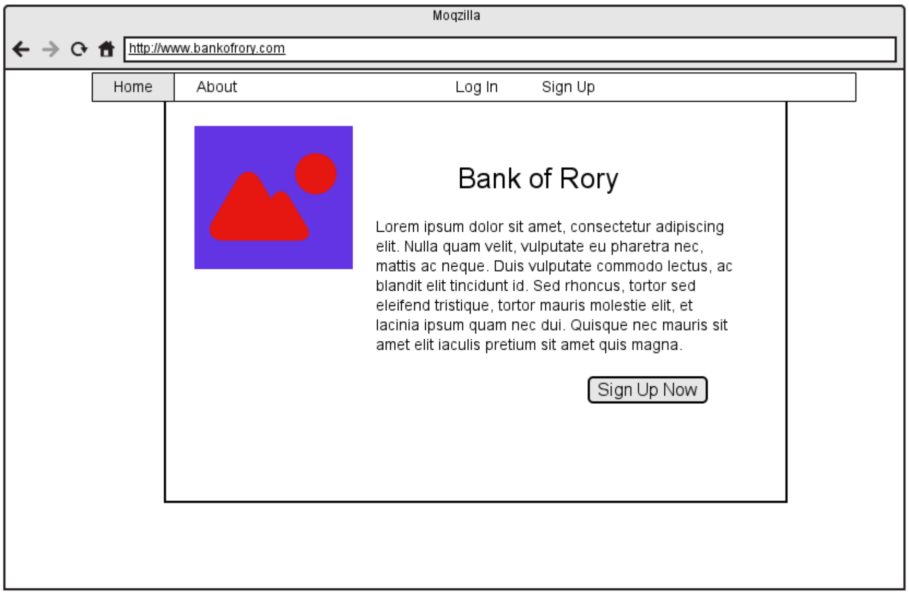
System Login's

The following are the Login details that you will need to access the system.

Username: admin@bankofrory.com	**Password**: admin1234
Username: support@bankofrory.com	**Password**: support1234
Username: liam@example.com	**Password**: 1234567
Username: will@yourbank.com	**Password**: 1234567
Username: billy@ait.ie	**Password**: 1234567

Wireframes

The following are a selection of wireframes outlining how the system will look and shows the flow through the site. Figure 1 shows a simple home page with a call to action on the home screen

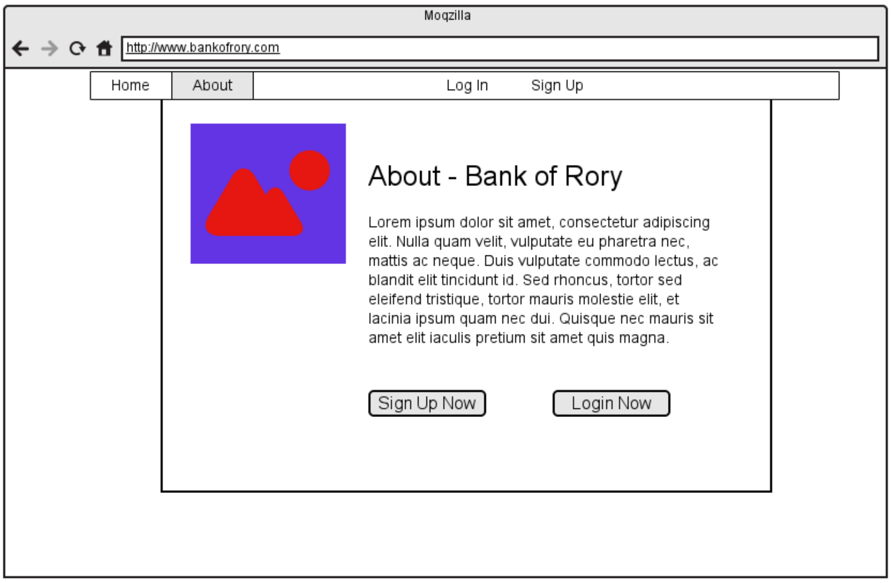


Bank of Rory

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nulla quam velit, vulputate eu pharetra nec, mattis ac neque. Duis vulputate commodo lectus, ac blandit elit tincidunt id. Sed rhoncus, tortor sed eleifend tristique, tortor mauris molestie elit, et lacinia ipsum quam nec dui. Quisque nec mauris sit amet elit iaculis pretium sit amet quis magna.

Fig. 1: Home Page

Figure 2 Shows the about page including a sign up button and a login button



About - Bank of Rory

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nulla quam velit, vulputate eu pharetra nec, mattis ac neque. Duis vulputate commodo lectus, ac blandit elit tincidunt id. Sed rhoncus, tortor sed eleifend tristique, tortor mauris molestie elit, et lacinia ipsum quam nec dui. Quisque nec mauris sit amet elit iaculis pretium sit amet quis magna.

Fig. 2: About Page

Figure 3 shows the log in screen with a form to be filled out so one of the three roles can gain access to the system.

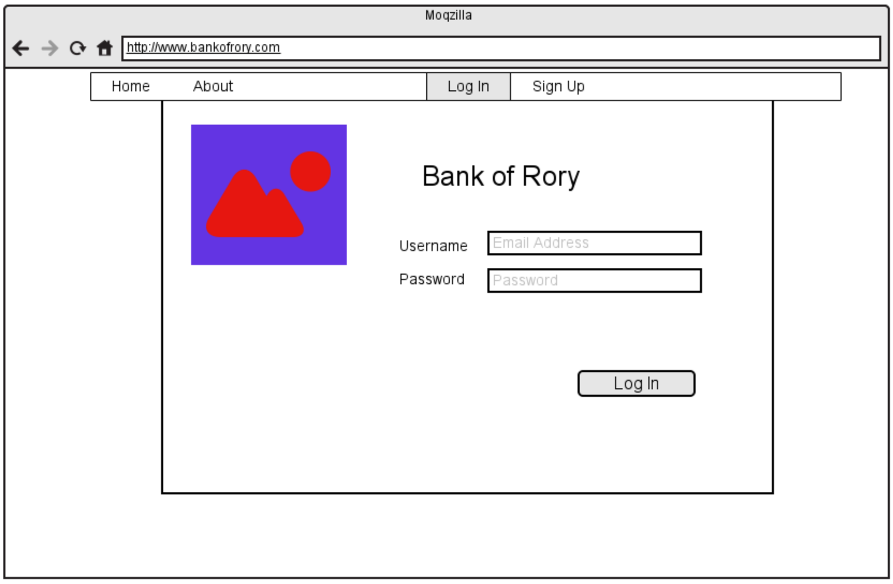


Fig. 3: Login Page

Figure 4 shows the sign up page where the user can sign up and create a bank account.

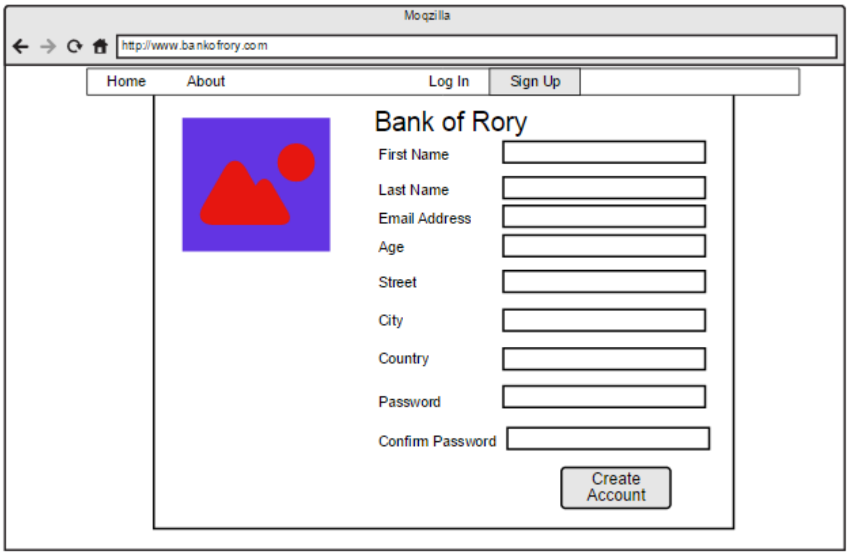
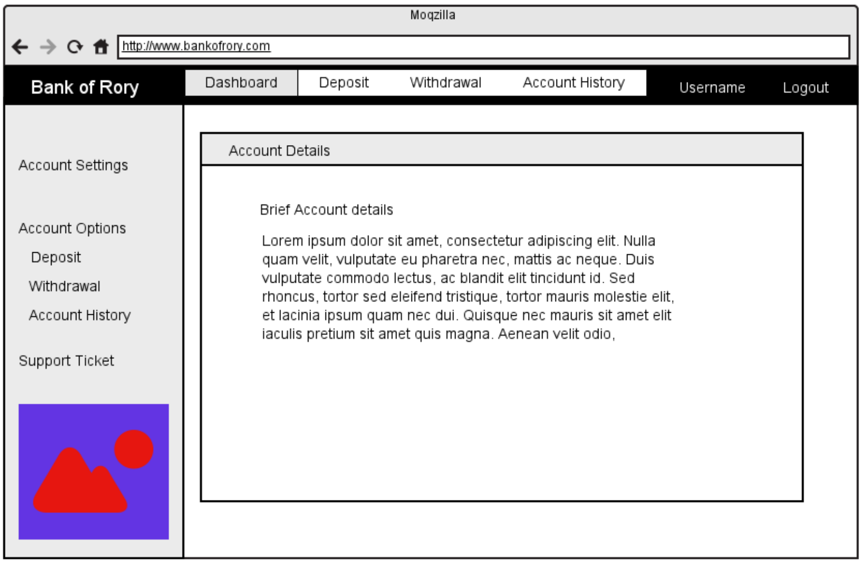


Fig. 4: Sign Up Page

Figure 5 shows the screen the user will see after he or she has signed in. Important to know here is that each role will see a different screen after they log in.



Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nulla quam velit, vulputate eu pharetra nec, mattis ac neque. Duis vulputate commodo lectus, ac blandit elit tincidunt id. Sed rhoncus, tortor sed eleifend tristique, tortor mauris molestie elit, et lacinia ipsum quam nec dui. Quisque nec mauris sit amet elit iaculis pretium sit amet quis magna. Aenean velit odio,

Fig. 5: Dashboard for the User

Figure 6 shows how a user, admin or support staff can update their own account. If the admin is updating an account there will be an extra option to set a role.

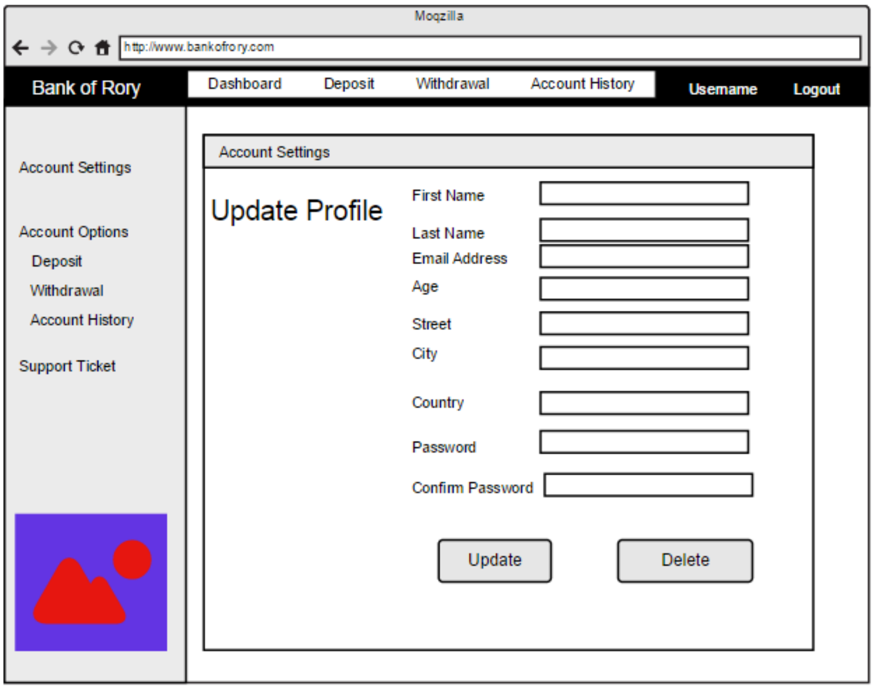
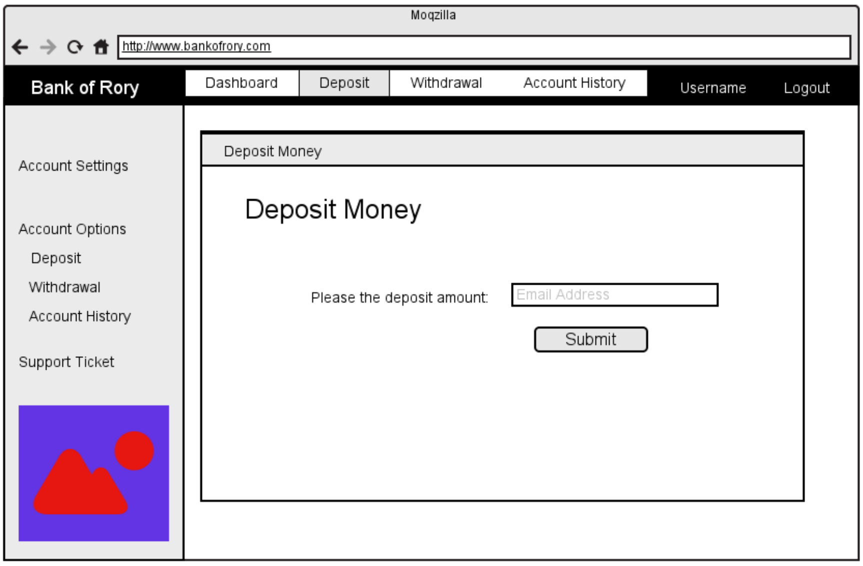


Fig. 6: Update and delete a users data

Figure 7 shows how a user could deposiy money in their bank account. The deposit screen will not differ much from that of the withdraw screen.

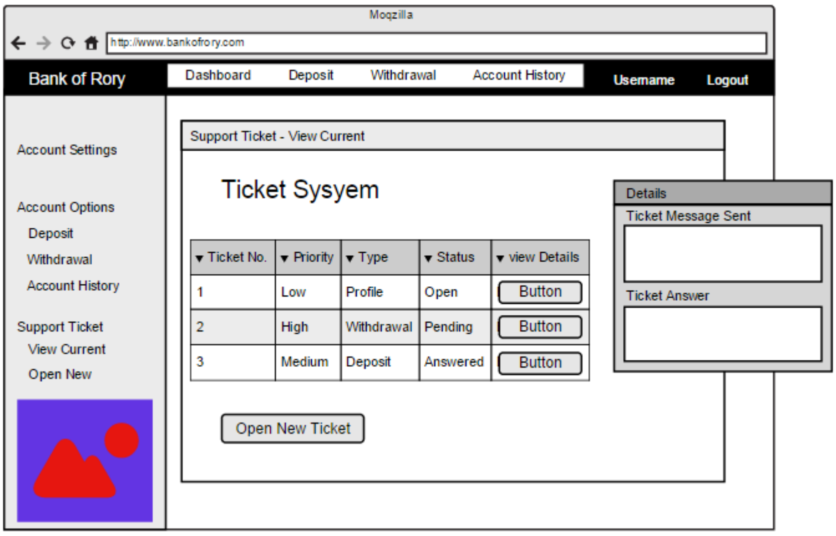


Deposit Money

Please the deposit amount: Email Address

Fig. 7: User can make a deposit

Figure 8 shows how the ticket system would list all tickets that the user has sent. These tickets will have a button on each line that will be clickable the details of the ticket will show up. The user will also be able to create tickets as will. The user will have to fill out a simple from with a message and then submit it.

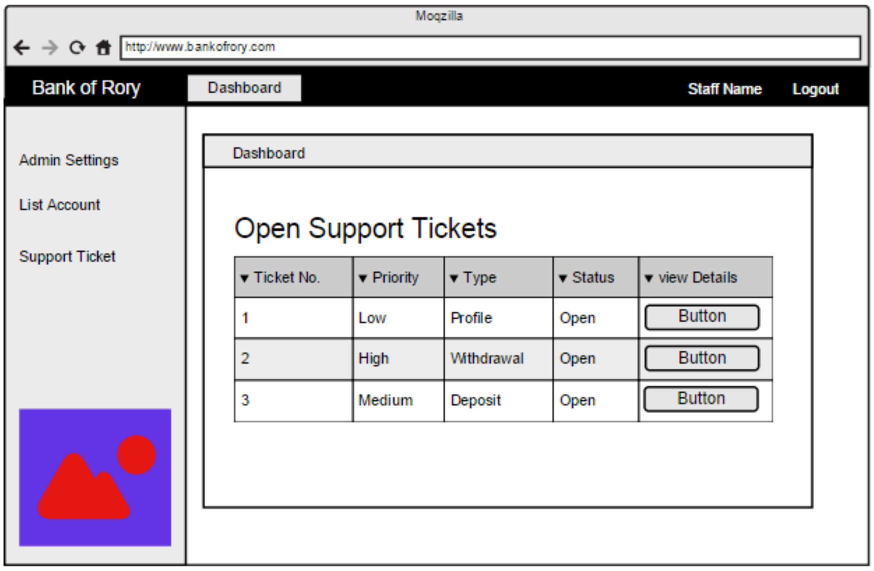


Ticket Sysyem

▾ Ticket No.	▾ Priority	▾ Type	▾ Status	▾ view Details
1	Low	Profile	Open	Button
2	High	Withdrawal	Pending	Button
3	Medium	Deposit	Answered	Button

Fig. 8: User Tickets

Figure 9 shows the screen the support staff will see when thay log in. They will see open tickets on the main dashboard and will be able to see all tickets on the suport ticket page.

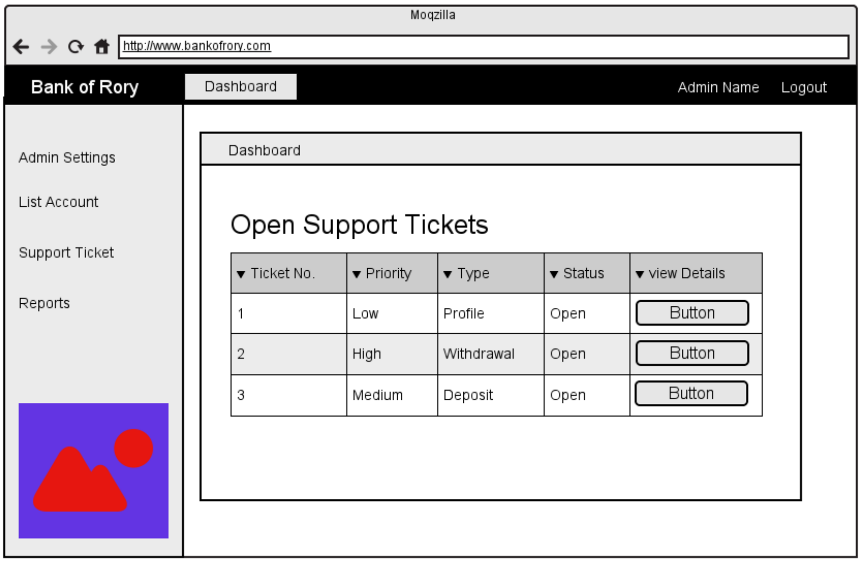


Open Support Tickets

▾ Ticket No.	▾ Priority	▾ Type	▾ Status	▾ view Details
1	Low	Profile	Open	Button
2	High	Withdrawal	Open	Button
3	Medium	Deposit	Open	Button

Fig. 9: Suport Staff Main Page

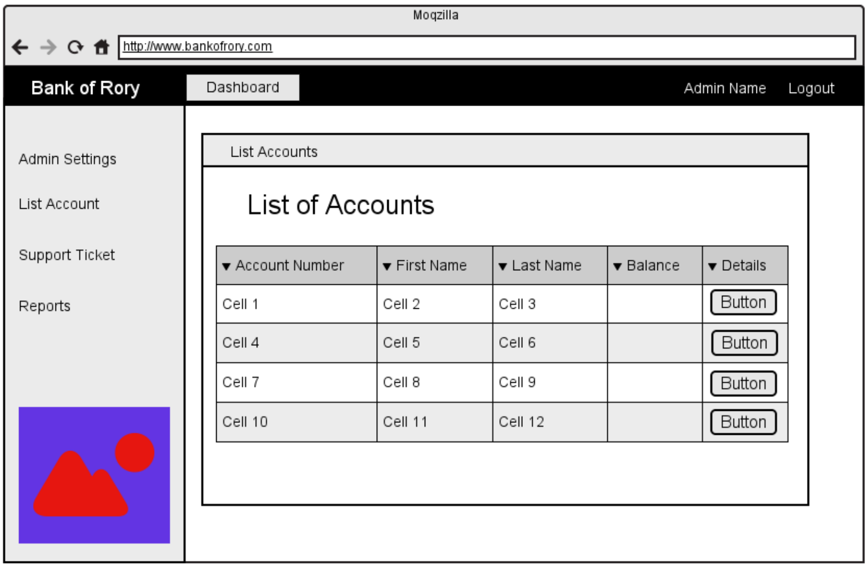
Figure 10 shows a the view of the admin when he or she logs on to the system. As you can see from figure 10 and 11 the admin can see all account and all support tickets. He will be also be able to update account and change the roles of the users.



Open Support Tickets

▾ Ticket No.	▾ Priority	▾ Type	▾ Status	▾ view Details
1	Low	Profile	Open	Button
2	High	Withdrawal	Open	Button
3	Medium	Deposit	Open	Button

Fig. 10: Admin Area

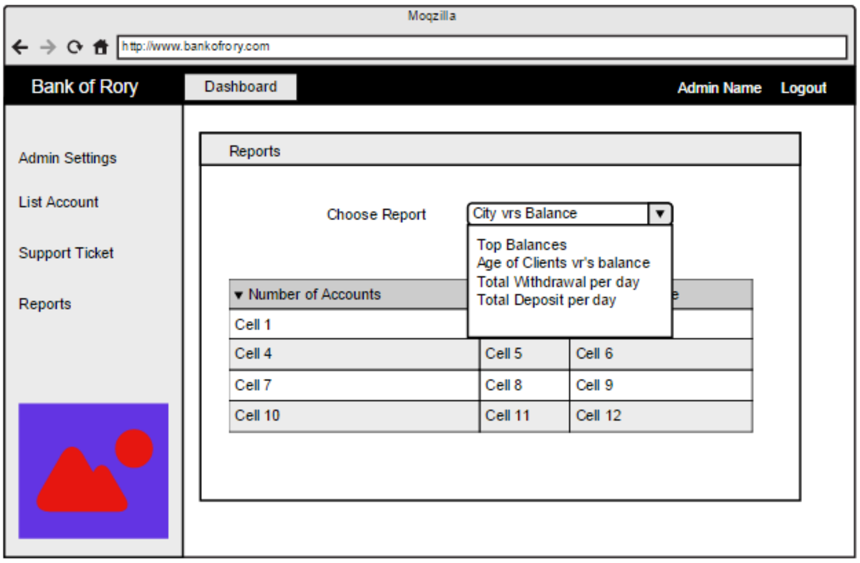


List of Accounts

▾ Account Number	▾ First Name	▾ Last Name	▾ Balance	▾ Details
Cell 1	Cell 2	Cell 3		Button
Cell 4	Cell 5	Cell 6		Button
Cell 7	Cell 8	Cell 9		Button
Cell 10	Cell 11	Cell 12		Button

Fig. 11: Admin List of Accounts

Figure 12 shows the report section which is only visable from the admin login. Please note that there will be 5 reports available. The extra box here shows the 5 report that I will show.



Choose Report: City vrs Balance ▾

Top Balances
Age of Clients vr's balance
Total Withdrawal per day
Total Deposit per day

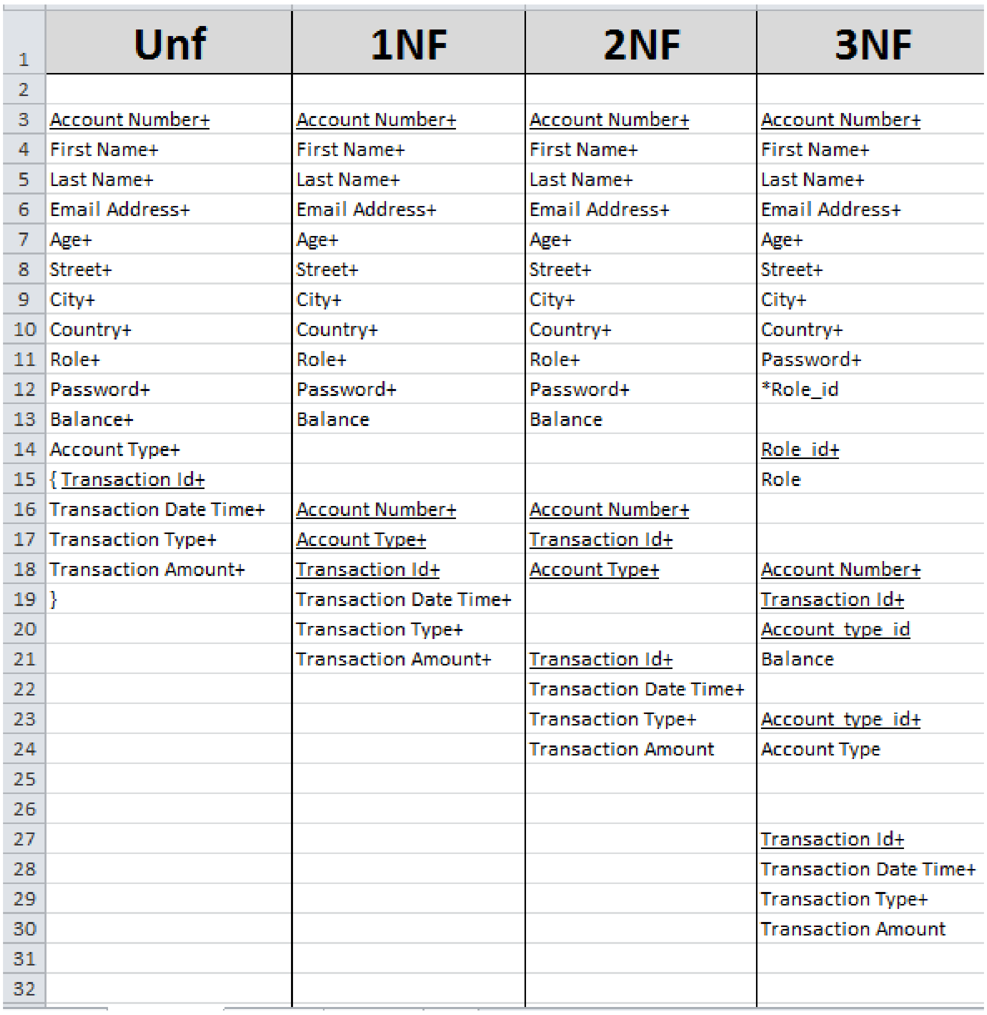
▾ Number of Accounts		e
Cell 1		
Cell 4	Cell 5	Cell 6
Cell 7	Cell 8	Cell 9
Cell 10	Cell 11	Cell 12

Fig. 12: Admin Reports

MySQL Database

Database Schema

Firstly I looked at the data I wanted to store and I put the data in to third normal form. Please see the diagram below.



1	Unf	1NF	2NF	3NF
2				
3	Account Number+	Account Number+	Account Number+	Account Number+
4	First Name+	First Name+	First Name+	First Name+
5	Last Name+	Last Name+	Last Name+	Last Name+
6	Email Address+	Email Address+	Email Address+	Email Address+
7	Age+	Age+	Age+	Age+
8	Street+	Street+	Street+	Street+
9	City+	City+	City+	City+
10	Country+	Country+	Country+	Country+
11	Role+	Role+	Role+	Password+
12	Password+	Password+	Password+	*Role_id
13	Balance+	Balance	Balance	
14	Account Type+			Role_id+
15	{ Transaction Id+			Role
16	Transaction Date Time+	Account Number+	Account Number+	
17	Transaction Type+	Account Type+	Transaction Id+	
18	Transaction Amount+	Transaction Id+	Account Type+	Account Number+
19	}	Transaction Date Time+		Transaction Id+
20		Transaction Type+		Account_type_id
21		Transaction Amount+	Transaction Id+	Balance
22			Transaction Date Time+	
23			Transaction Type+	Account_type_id+
24			Transaction Amount	Account Type
25				
26				
27				Transaction Id+
28				Transaction Date Time+
29				Transaction Type+
30				Transaction Amount
31				
32				

Fig. 13: The Data in Third Order Form

When I had the data in third order form I created a database schema fig. 14 using MySQL workbench.

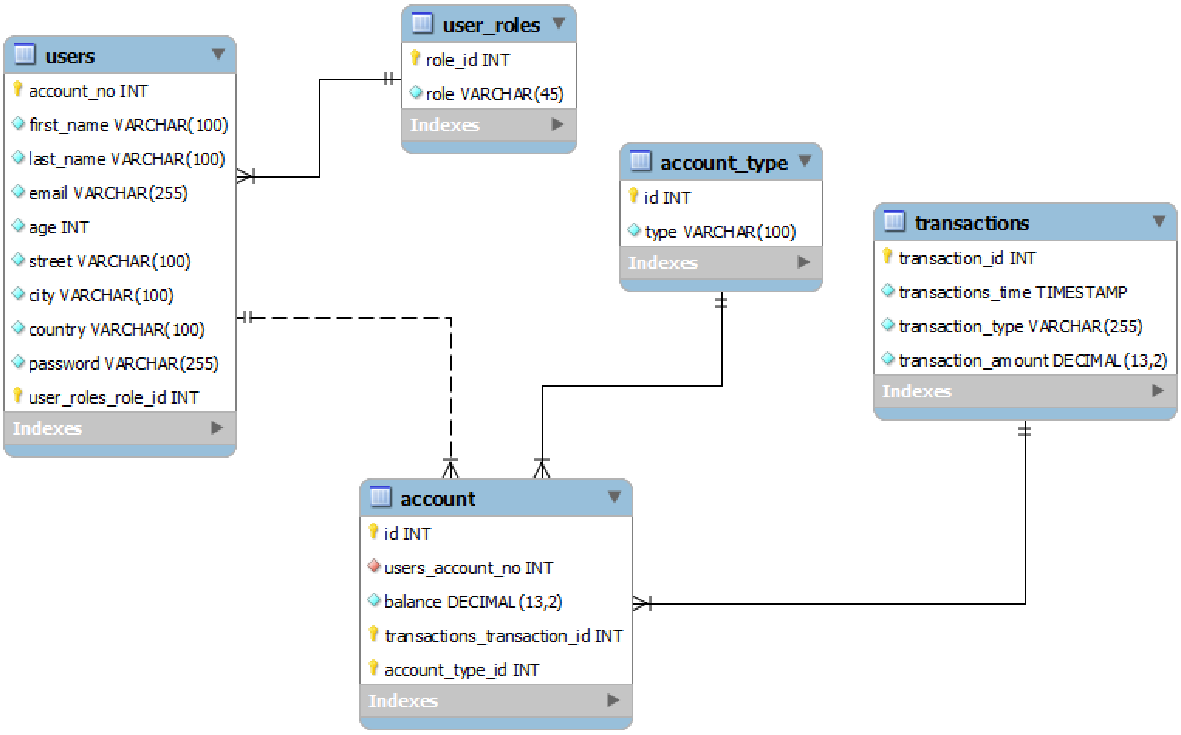


Fig. 14: Database Schema

Figure 14 shows the relationships between the different database tables.

They are as follows

- “users” has a one to many relationship meaning many users can have one role and that users can have only one role.
- “users” has a one to many relationship with account. A user can own many accounts but only one account can be owner by one user.
- “account” has a many to one relationship because many accounts can have the same account type but only one account type can be associated to one account.
- “account” has a many to one relationship can have many transactions but each transaction is only associated to one account.

The data that I will be storing in the NoSQL database will be as follows:

- Ticket Number
- Account Number
- Priority
- Type
- Status
- Message
- Date Posted
- Review Message – This will be added when a reply is sent

In the appendix under database dump, please find a MySQL dump of all the data need to make the "Bank of Rory" database.

Database Triggers

I have use 3 triggers in on the database. These triggers are starting_off_acc, delete_user and delete_account.

Starting off an Account - starting_off_acc

This trigger is triggered after a user inserts a new account. The trigger carries out two further inserts on the account table (adding an account) and the transactions table (add the transaction to the history of the user). Please see the code below.

```
-- Triggers `users`
DROP TRIGGER IF EXISTS `starting_off_acc`;
DELIMITER //
CREATE TRIGGER `starting_off_acc` AFTER INSERT ON `users`
 FOR EACH ROW BEGIN
 INSERT INTO account VALUES(NULL,new.account_no,0.00,1);
 SET @last_id_in_account = LAST_INSERT_ID();
INSERT INTO transactions VALUES(NULL,CURRENT_TIMESTAMP,'Open
Account',0.00,@last_id_in_account);
END//
DELIMITER ;
```

Deleting a user - delete_user

This trigger is started before you delete a user so that the users account can be deleted first. Please see the code below.

```
DROP TRIGGER IF EXISTS `delete_user`;
DELIMITER //
CREATE TRIGGER `delete_user` BEFORE DELETE ON `users`
 FOR EACH ROW DELETE FROM account
   WHERE users_account_no = old.account_no
//
DELIMITER ;
```

Deleting an Account - delete_account

This trigger is started before you delete an account so that the transaction that are associated with this account can be deleted first. Please see the code below.

```
-- Triggers `account`
DROP TRIGGER IF EXISTS `delete_account`;
DELIMITER //
CREATE TRIGGER `delete_account` BEFORE DELETE ON `account`
 FOR EACH ROW DELETE FROM transactions
   WHERE account_id = old.id
//
DELIMITER ;
```

Database Procedures

Below are all the procedures that were used in in the database.

ADD_NEW_ACCOUNT

The ADD_NEW_ACCOUNT Procedure is used to add a new account by inserting values in to users table.

```
CREATE DEFINER=`root`@`localhost` PROCEDURE `ADD_NEW_ACCOUNT`(fname
varchar(100), lname varchar(100), email varchar(255), age int(11), street
varchar(100),city varchar(100),country varchar(100),pass varchar(255))
BEGIN
INSERT INTO users VALUES(NULL,fname,lname,email,age,street,city,country,pass,3);
END$$
```

CHECK_LOGIN_DETAILS

The CHECK_LOGIN_DETAILS Procedure is used to check if there is a matching username and password combination in the users table.

```
CREATE DEFINER=`root`@`localhost` PROCEDURE
`CHECK_LOGIN_DETAILS`(username_input VARCHAR(255),password_input
VARCHAR(255)  )
BEGIN
SELECT * FROM users where email = username_input AND password =
password_input;
END$$
```

DELETE_ACCOUNT

The DELETE_ACCOUNT Procedure is used to delete an account by the account number of a chosen user.

```
CREATE DEFINER=`root`@`localhost` PROCEDURE `DELETE_ACCOUNT`(custnum
NUMERIC)
```

```
BEGIN
DELETE FROM users WHERE account_no = custnum;
END$$
```

DEPOSIT_MONEY

The DEPOSIT_MONEY Procedure is used to deposit money in the bank account of a chosen bank account number. Also I am adding a note of this into the transactions table.

```
CREATE DEFINER=`root`@`localhost` PROCEDURE `DEPOSIT_MONEY`(acc_id
NUMERIC, amount decimal(13,2))
BEGIN
UPDATE `account` SET balance = balance + amount WHERE id = acc_id;
INSERT INTO transactions (transactions_time, transaction_type,
transaction_amount, account_id)
VALUES (CURRENT_TIMESTAMP,'Deposit Money', amount,acc_id);
END$$
```

GET_ACCOUNTS

The GET_ACCOUNTS procedure is used to get the full account details of all the bank accounts. This includes information from the users table and the accounts table. I have left out the first two users as they are the admin and the support staff accounts.

```
CREATE DEFINER=`root`@`localhost` PROCEDURE `GET_ACCOUNTS`()
BEGIN
SELECT a.id, u.account_no, u.first_name, u.last_name, u.age, u.country,a.balance,
a.account_type_id FROM
users as u join account as a WHERE u.account_no = a.users_account_no AND
u.user_roles_role_id > 2;
END$$
```

GET_ACCOUNT_INFO

The GET_ACCOUNT_INFO procedure is used to get the account information of a chosen account number.

```
CREATE DEFINER=`root`@`localhost` PROCEDURE `GET_ACCOUNT_INFO`(usernum
NUMERIC)
BEGIN
SELECT u.account_no, u.first_name, u.last_name, u.email, u.age, u.street, u.city,
u.country, a.balance,a.id, a.account_type_id FROM users as u join account as a
WHERE
u.account_no = a.users_account_no AND u.account_no = usernum;
END$$
```

GET_ACCOUNT_TYPES

The GET_ACCOUNT_TYPES procedure is used to get account type form the account type table. This data is used to fill a selection box so that the admin role can change the account type to a valid account type.

```
CREATE DEFINER=`root`@`localhost` PROCEDURE `GET_ACCOUNT_TYPES`()
BEGIN
SELECT * FROM account_type;
END$$
```

GET_CURRENT_BALANCE

The GET_CURRENT_BALANCE procedure is used to get the current balance of chosen user id. This is used to tell the admin role what the balance of the account is that he is about to update.

```
CREATE DEFINER=`root`@`localhost` PROCEDURE `GET_CURRENT_BALANCE`(user_id
NUMERIC)
BEGIN
SELECT balance FROM account as a WHERE a.users_account_no = user_id;
END$$
```

GET_DEPOSIT_DATE

The GET_DEPOSIT_DATE procedure is used to get the deposit by date. This data is used in the reports section of the admin role under the “view deposits by day section”. This data is a combination of data across three table. I have left out the first two users as they are the admin and the support staff accounts.

```
CREATE DEFINER=`root`@`localhost` PROCEDURE `GET_DEPOSIT_DATE`(search_date
varchar(255))
BEGIN
SELECT a.id, u.first_name, u.last_name,t.transaction_id, t.transactions_time,
t.transaction_type, t.transaction_amount FROM
transactions as t JOIN account as a JOIN users as u where a.users_account_no =
u.account_no
AND a.id = t.account_id AND u.user_roles_role_id > 2
AND STR_TO_DATE( search_date,  '%Y-%m-%d' ) = DATE(t.transactions_time) AND
t.transaction_type = 'Deposit Money';
END$$
```

GET_DEPOSIT_DAY

The GET_DEPOSIT_DAY procedure is used to generate a list of dates that deposit transactions have been made on. This data is used in a selection list and the selection form this list goes in to the GET_DEPOSIT_DATE procedure to generate the data for the “view deposits by day section” report.

```
CREATE DEFINER=`root`@`localhost` PROCEDURE `GET_DEPOSIT_DAY`()
BEGIN
SELECT  DISTINCT(DATE(t.transactions_time)) as dates FROM transactions as t
WHERE t.transaction_type = 'Deposit Money';
END$$
```

GET_LAST_ACCOUNT_ID

The GET_LAST_ACCOUNT_ID procedure is used to get the last id of the last account inserted into the user table.

```
CREATE DEFINER=`root`@`localhost` PROCEDURE `GET_LAST_ACCOUNT_ID`()
BEGIN
SELECT account_no FROM users ORDER BY account_no DESC LIMIT 1; END$$
```

GET_TICKET_INFO

The GET_TICKET_INFO procedure gets the account information for all users. The account number field is then used to query the NoSQL database. The query will count the number of tickets for each user and delete the users with zero tickets and only leave the accounts with countable tickets. Then the associative array will be changed by adding in an extra key value of ticket and the count of tickets to each row. Then this data is used in the “Customer Ticket” report. This code will be covered in another section on the reports.

```
CREATE DEFINER=`root`@`localhost` PROCEDURE `GET_TICKET_INFO`()
BEGIN
SELECT a.id,u.first_name,u.last_name,u.country,at.type FROM users as u join
account as a join account_type as at WHERE u.account_no = a.users_account_no
AND
a.account_type_id = at.id AND u.user_roles_role_id > 2 group by a.id;
END$$
```

GET_Top_BALANCES

The GET_Top_BALANCES procedure is used to generate the data for the “Top Balances” report. The balances are shown from highest to lowest. This select statement used four table to find who has the most money. I have left out the first two users as they are the admin and the support staff accounts.

```
CREATE DEFINER=`root`@`localhost` PROCEDURE `GET_Top_BALANCES`()
BEGIN
SELECT a.id,u.first_name,u.last_name,u.country,a.balance, at.type,
Count(t.account_id) as no_of_trans FROM users as u join account as a join
account_type as at join transactions as t WHERE u.account_no = a.users_account_no
AND
a.account_type_id = at.id AND a.id = t.account_id AND u.user_roles_role_id > 2
group by a.id order by balance desc;
END$$
```

GET_Top_REGIONS

The GET_Top_REGIONS procedure is used to generate the data for the “Top Regions” report. The select statement uses four table to count the distinct countries and the money of the users of that country. I have left out the first two users as they are the admin and the support staff accounts.

```
CREATE DEFINER=`root`@`localhost` PROCEDURE `GET_Top_REGIONS`()
BEGIN
SELECT Count(DISTINCT u.account_no) as total_cust,u.country,
Sum(DISTINCT a.balance) as total_bal, Count(t.account_id) as no_of_trans FROM
users as u join account as a join
account_type as at join transactions as t WHERE u.account_no = a.users_account_no
AND
a.account_type_id = at.id AND a.id = t.account_id AND u.user_roles_role_id > 2
group by u.country order by total_bal desc;
END$$
```

GET_TRANSACTIONS

The GET_TRANSACTIONS procedure gets the transactions by user id so they can be shown to the relevant user.

```
CREATE DEFINER=`root`@`localhost` PROCEDURE `GET_TRANSACTIONS`(user_id
NUMERIC)
BEGIN
SELECT t.transaction_id, t.transactions_time, t.transaction_type,
t.transaction_amount, t.account_id FROM
transactions as t JOIN account as a where a.users_account_no = user_id AND a.id =
t.account_id;
END$$
```

GET_WITHDRAWS_DAY

The GET_WITHDRAWS_DAY procedure is used to generate a list of dates that withdrawal transactions have been made on. This data is used in a selection list and the selection form this list goes in to the GET_WITHDRAW_DATE procedure to generate the data for the "view withdrawals by day section" report.

```
CREATE DEFINER=`root`@`localhost` PROCEDURE `GET_WITHDRAWS_DAY`()
BEGIN
SELECT  DISTINCT(DATE(t.transactions_time)) as dates FROM transactions as t
WHERE t.transaction_type = 'Withdraw Money';
END$$
```

GET_WITHDRAW_DATE

The GET_WITHDRAW_DATE procedure is used to get the withdrawal by date. This data is used in the reports section of the admin role under the "view withdrawals by day section". This data is a combination of data across three table. I have left out the first two users as they are the admin and the support staff accounts.

```
CREATE DEFINER=`root`@`localhost` PROCEDURE
`GET_WITHDRAW_DATE`(search_date varchar(255))
BEGIN
SELECT a.id, u.first_name, u.last_name,t.transaction_id, t.transactions_time,
t.transaction_type, t.transaction_amount FROM
transactions as t JOIN account as a JOIN users as u where a.users_account_no =
u.account_no AND a.id = t.account_id AND u.user_roles_role_id > 2
AND STR_TO_DATE( search_date,  '%Y-%m-%d' ) = DATE(t.transactions_time) AND
t.transaction_type = 'Withdraw Money';
END$$
```

UPDATE_ACCOUNT

The UPDATE_ACCOUNT procedure updates the account information of a chosen user id.

```
CREATE DEFINER=`root`@`localhost` PROCEDURE `UPDATE_ACCOUNT`(id NUMERIC,
fname varchar(100), lname varchar(100),age int(11), street varchar(100),
city varchar(100),counrty varchar(100))
BEGIN
UPDATE `users` SET first_name = fname , last_name = lname,age = age, street =
street,
city = city, country = counrty WHERE account_no = id;
END$$
```

UPDATE_ACCOUNT_PASS

The UPDATE_ACCOUNT_PASS procedure updates the account password of a chosen user id.

```
CREATE DEFINER=`root`@`localhost` PROCEDURE `UPDATE_ACCOUNT_PASS`(id
NUMERIC, new_pass varchar(255))
BEGIN
UPDATE users SET password = new_pass WHERE account_no = id;
END$$
```

UPDATE_ACCOUNT_type

The UPDATE_ACCOUNT_type procedure updates the account type of a chosen user id i.e. current account or student account.

```
CREATE DEFINER=`root`@`localhost` PROCEDURE `UPDATE_ACCOUNT_type`(id
NUMERIC, type NUMERIC)
BEGIN
UPDATE `account` SET account_type_id = type WHERE users_account_no = id;END$$
```

UPDATE_BALANCE

The UPDATE_BALANCE procedure updates the account balance of a chosen account id. Also I am adding a note of this into the transactions table.

```
CREATE DEFINER=`root`@`localhost` PROCEDURE `UPDATE_BALANCE`(acc_id
NUMERIC, amount decimal(13,2))
BEGIN
UPDATE `account` SET balance = amount WHERE id = acc_id;
INSERT INTO transactions (transactions_time, transaction_type,
transaction_amount, account_id) VALUES (CURRENT_TIMESTAMP,'Changes Balance',
amount,acc_id);END$$
```

WITHDRAW_MONEY

The WITHDRAW_MONEY Procedure is used to withdraw money from the bank account of a chosen bank account number. Also I am adding a note of this into the transactions table.

```
CREATE DEFINER=`root`@`localhost` PROCEDURE `WITHDRAW_MONEY`(acc_id
NUMERIC, amount decimal(13,2))
BEGIN
UPDATE `account` SET balance = balance - amount WHERE id = acc_id;
INSERT INTO transactions (transactions_time, transaction_type,
transaction_amount, account_id) VALUES (CURRENT_TIMESTAMP,'Withdraw
Money', amount,acc_id);
END$$
```

Generated Reports

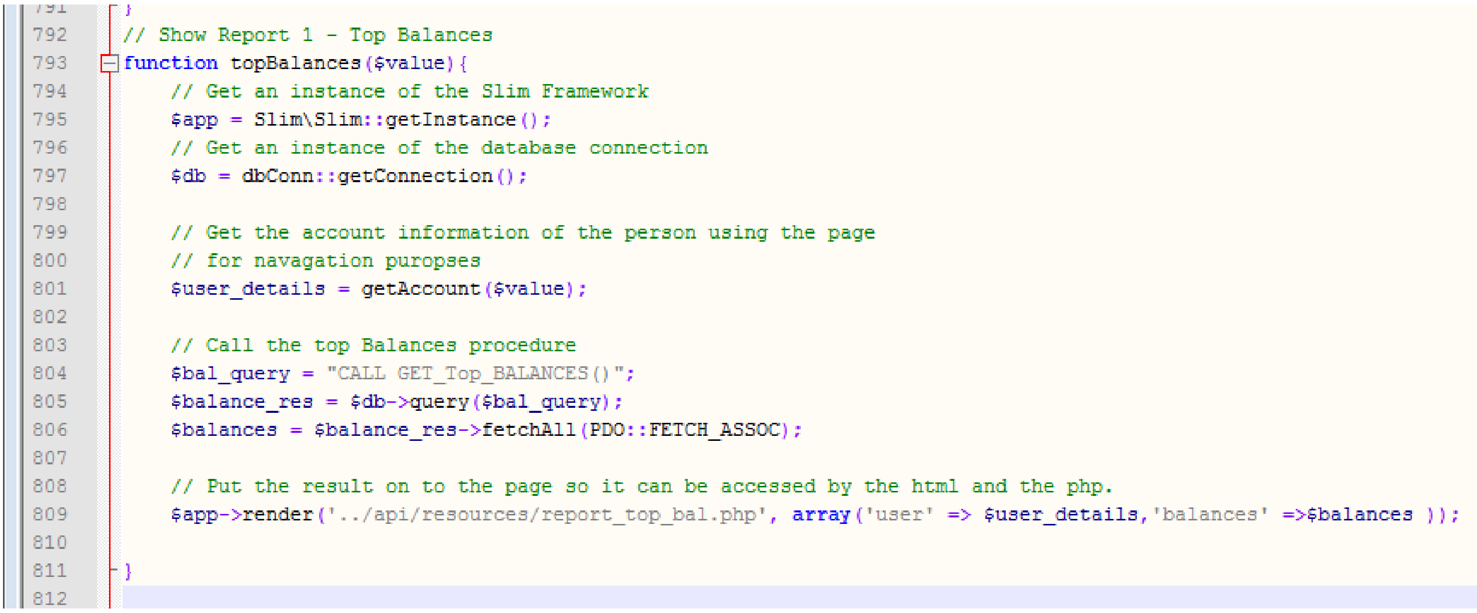
Below is a list of all the generated reports used in the database.

Report 1 – Top BALANCES

The GET_Top_BALANCES procedure below is used to generate the data for the "Top Balances" report. The balances are shown from highest to lowest. This select statement used four table to find who has the most money. I have left out the first two users as they are the admin and the support staff accounts.

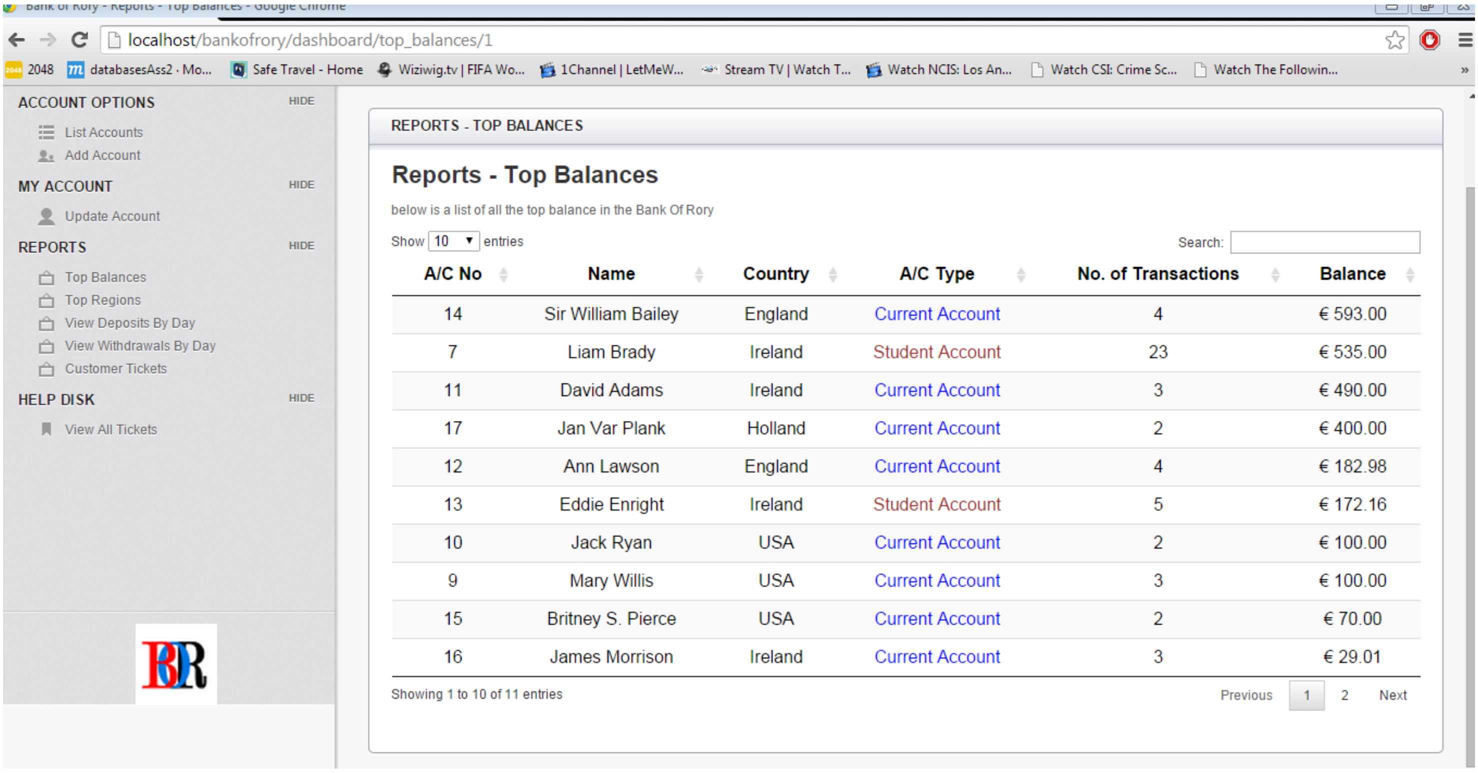
```
CREATE DEFINER=`root`@`localhost` PROCEDURE `GET_Top_BALANCES`()
BEGIN
SELECT a.id,u.first_name,u.last_name,u.country,a.balance, at.type,
Count(t.account_id) as no_of_trans FROM users as u join account as a join
account_type as at join transactions as t WHERE u.account_no = a.users_account_no
AND
a.account_type_id = at.id AND a.id = t.account_id AND u.user_roles_role_id > 2
group by a.id order by balance desc;
END$$
```

Figure 15 below shows the code used to call the above procedure. Figure 16 show the output of the report as it would be viewed by the admin role.



```
}
// Show Report 1 - Top Balances
function topBalances($value){
    // Get an instance of the Slim Framework
    $app = Slim\Slim::getInstance();
    // Get an instance of the database connection
    $db = dbConn::getConnection();

    // Get the account information of the person using the page
    // for navagation puropses
    $user_details = getAccount($value);

    // Call the top Balances procedure
    $bal_query = "CALL GET_Top_BALANCES()";
    $balance_res = $db->query($bal_query);
    $balances = $balance_res->fetchAll(PDO::FETCH_ASSOC);

    // Put the result on to the page so it can be accessed by the html and the php.
    $app->render('../api/resources/report_top_bal.php', array('user' => $user_details,'balances' =>$balances ));

}
```

Fig.15 – Top Balances Function



REPORTS - TOP BALANCES

Reports - Top Balances

below is a list of all the top balance in the Bank Of Rory

Show 10 entries Search:

A/C No	Name	Country	A/C Type	No. of Transactions	Balance
14	Sir William Bailey	England	Current Account	4	€ 593.00
7	Liam Brady	Ireland	Student Account	23	€ 535.00
11	David Adams	Ireland	Current Account	3	€ 490.00
17	Jan Var Plank	Holland	Current Account	2	€ 400.00
12	Ann Lawson	England	Current Account	4	€ 182.98
13	Eddie Enright	Ireland	Student Account	5	€ 172.16
10	Jack Ryan	USA	Current Account	2	€ 100.00
9	Mary Willis	USA	Current Account	3	€ 100.00
15	Britney S. Pierce	USA	Current Account	2	€ 70.00
16	James Morrison	Ireland	Current Account	3	€ 29.01

Showing 1 to 10 of 11 entries

Previous 1 2 Next

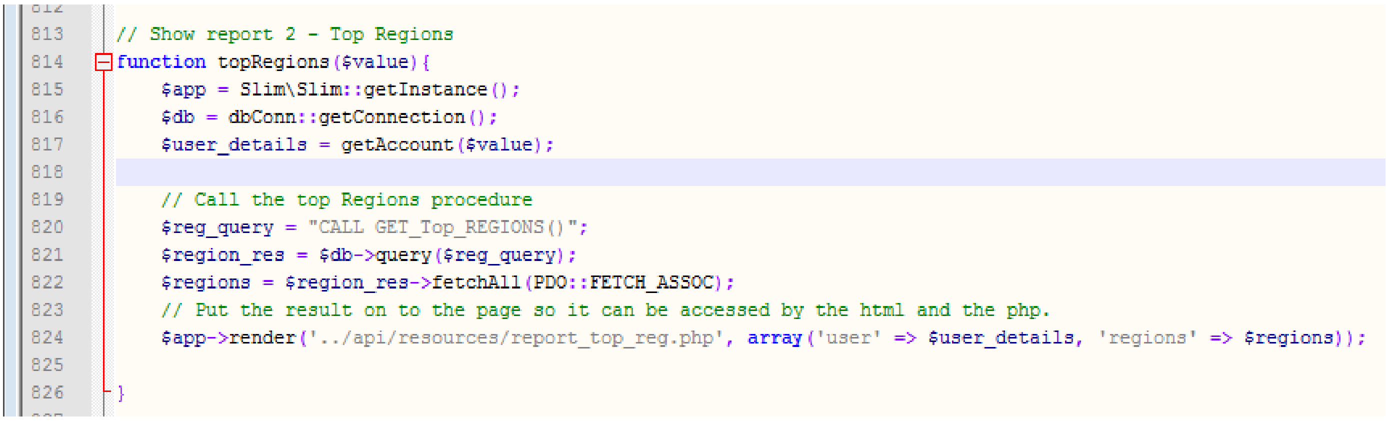
Fig.16 – Top Balances Report

Report 2 – Top REGIONS

The GET_Top_REGIONS procedure below is used to generate the data for the “Top Regions” report. The select statement uses four table to count the distinct countries and the money of the users of that country. I have left out the first two users as they are the admin and the support staff accounts.

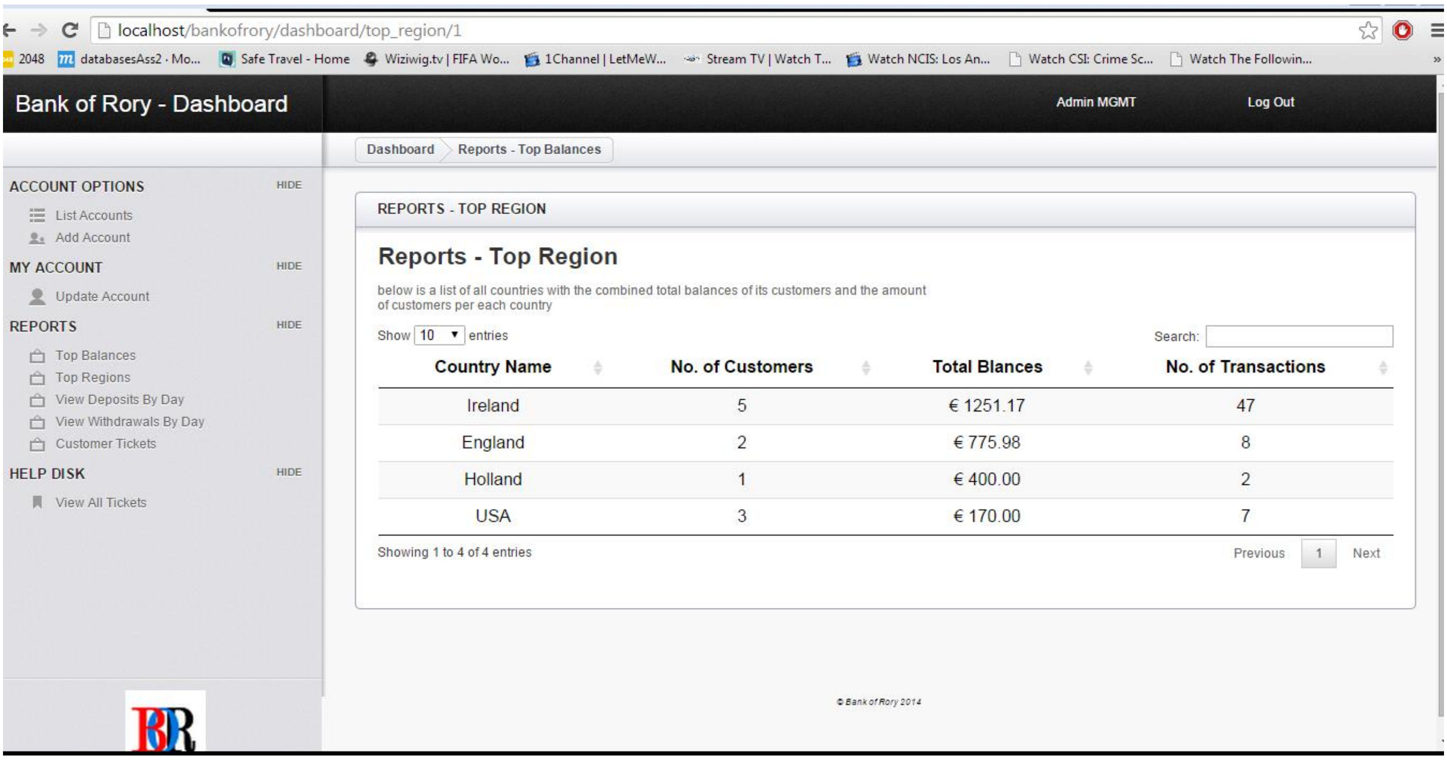
```
CREATE DEFINER=`root`@`localhost` PROCEDURE `GET_Top_REGIONS`()
BEGIN
SELECT Count(DISTINCT u.account_no) as total_cust,u.country,
Sum(DISTINCT a.balance) as total_bal, Count(t.account_id) as no_of_trans FROM
users as u join account as a join
account_type as at join transactions as t WHERE u.account_no = a.users_account_no
AND a.account_type_id = at.id AND a.id = t.account_id AND u.user_roles_role_id > 2
group by u.country order by total_bal desc; END$$
```

Figure 17 below shows the code used to call the above procedure. I have not commented as the code as these are recurring line in the function file and I have comments them in the previous section. Figure 18 show the output of the report as it would be viewed by the admin role.



```
// Show report 2 - Top Regions
function topRegions($value){
    $app = Slim\Slim::getInstance();
    $db = dbConn::getConnection();
    $user_details = getAccount($value);

    // Call the top Regions procedure
    $reg_query = "CALL GET_Top_REGIONS()";
    $region_res = $db->query($reg_query);
    $regions = $region_res->fetchAll(PDO::FETCH_ASSOC);
    // Put the result on to the page so it can be accessed by the html and the php.
    $app->render('../api/resources/report_top_reg.php', array('user' => $user_details, 'regions' => $regions));

}
```

Fig. 17 – Top Region function



REPORTS - TOP REGION

Reports - Top Region

below is a list of all countries with the combined total balances of its customers and the amount of customers per each country

Show 10 entries Search:

Country Name	No. of Customers	Total Blances	No. of Transactions
Ireland	5	€ 1251.17	47
England	2	€ 775.98	8
Holland	1	€ 400.00	2
USA	3	€ 170.00	7

Showing 1 to 4 of 4 entries

Fig. 18 – Top Region Report

Report 3 – View Deposits by Day

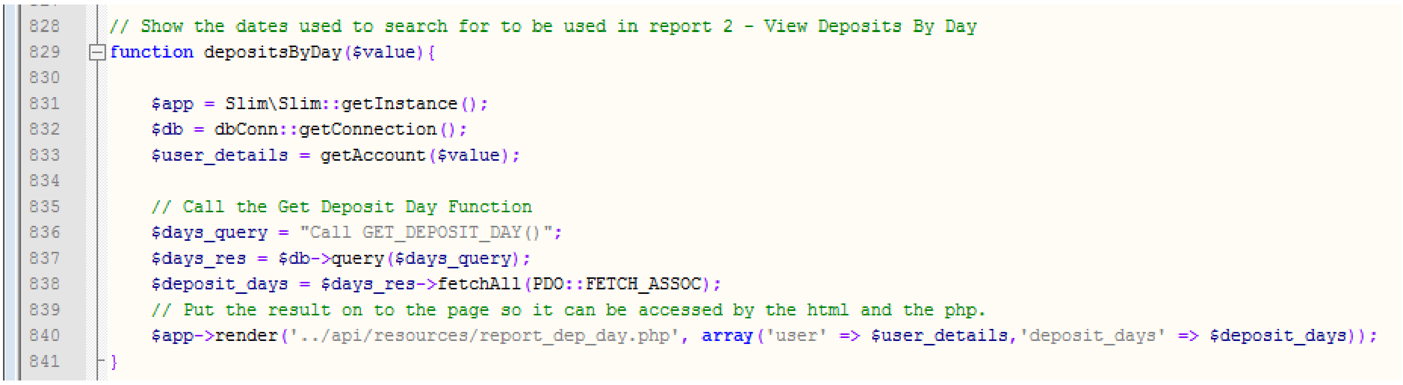
The GET_DEPOSIT_DAY procedure below is used to generate a list of dates that deposit transactions have been made on. This data is used in a selection list and the selection form this list goes in to the GET_DEPOSIT_DATE procedure to generate the data for the "view deposits by day section" report.

```
CREATE DEFINER=`root`@`localhost` PROCEDURE `GET_DEPOSIT_DAY`()
BEGIN
SELECT  DISTINCT(DATE(t.transactions_time)) as dates FROM transactions as t
WHERE t.transaction_type = 'Deposit Money';
END$$
```

The GET_DEPOSIT_DATE procedure below is used to get the deposit by date. This data is used in the reports section of the admin role under the "view deposits by day section". This data is a combination of data across three table. I have left out the first two users as they are the admin and the support staff accounts.

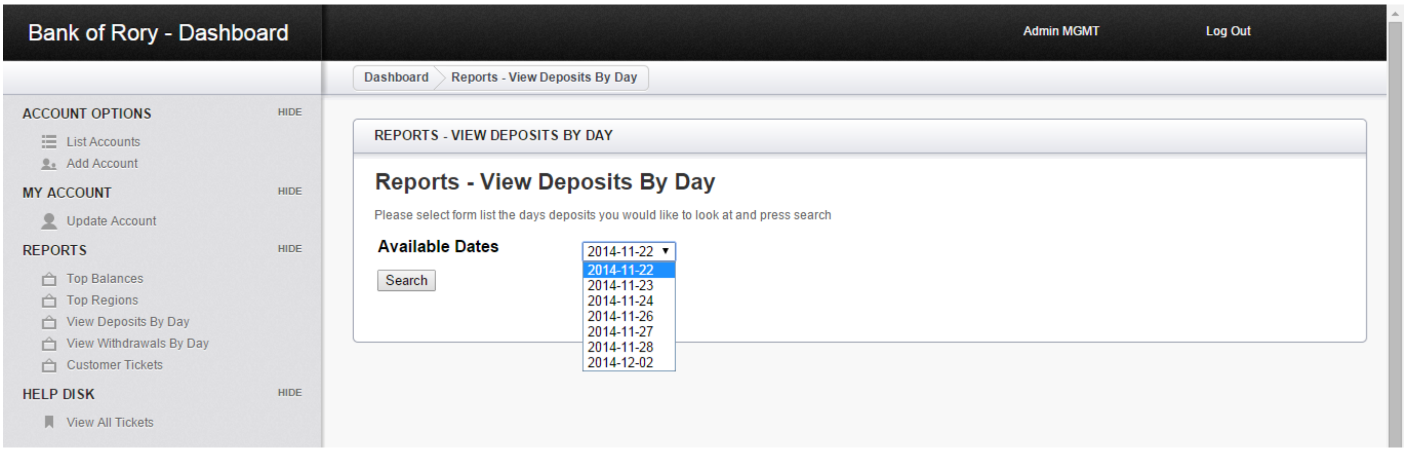
```
CREATE DEFINER=`root`@`localhost` PROCEDURE `GET_DEPOSIT_DATE`(search_date
varchar(255))
BEGIN
SELECT a.id, u.first_name, u.last_name,t.transaction_id, t.transactions_time,
t.transaction_type, t.transaction_amount FROM
transactions as t JOIN account as a JOIN users as u where a.users_account_no =
u.account_no
AND a.id = t.account_id AND u.user_roles_role_id > 2
AND STR_TO_DATE( search_date,  '%Y-%m-%d' ) = DATE(t.transactions_time) AND
t.transaction_type = 'Deposit Money';
END$$
```

Figure 19 below shows the code used to call the GET_DEPOSIT_DAY procedure. Figure 20 show the output of the GET_DEPOSIT_DAY procedure report as it would be viewed by the admin role.



```php
// Show the dates used to search for to be used in report 2 - View Deposits By Day
function depositsByDay($value){

    $app = Slim\Slim::getInstance();
    $db = dbConn::getConnection();
    $user_details = getAccount($value);

    // Call the Get Deposit Day Function
    $days_query = "Call GET_DEPOSIT_DAY()";
    $days_res = $db->query($days_query);
    $deposit_days = $days_res->fetchAll(PDO::FETCH_ASSOC);
    // Put the result on to the page so it can be accessed by the html and the php.
    $app->render('../api/resources/report_dep_day.php', array('user' => $user_details,'deposit_days' => $deposit_days));
}
```

Fig. 19 – Deposit by Day function



Reports - View Deposits By Day

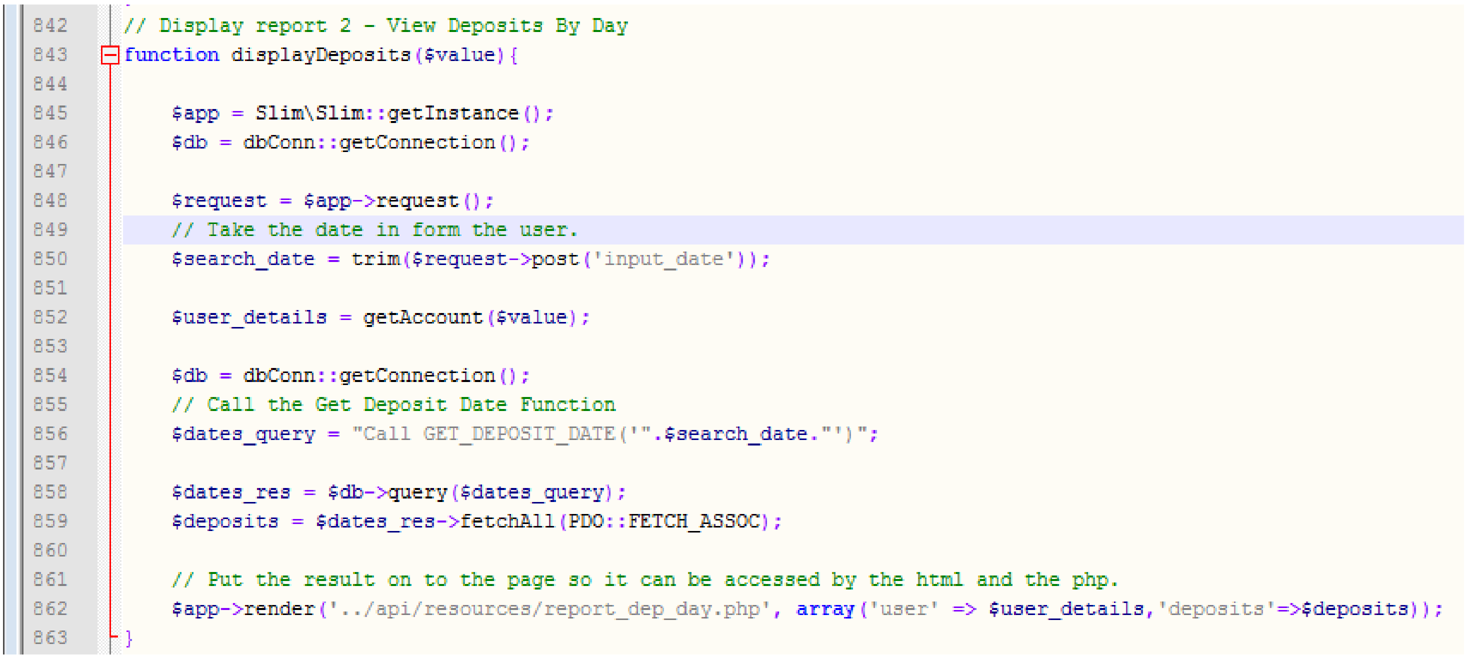
Please select form list the days deposits you would like to look at and press search

Available Dates 2014-11-22

2014-11-22
2014-11-23
2014-11-24
2014-11-26
2014-11-27
2014-11-28
2014-12-02

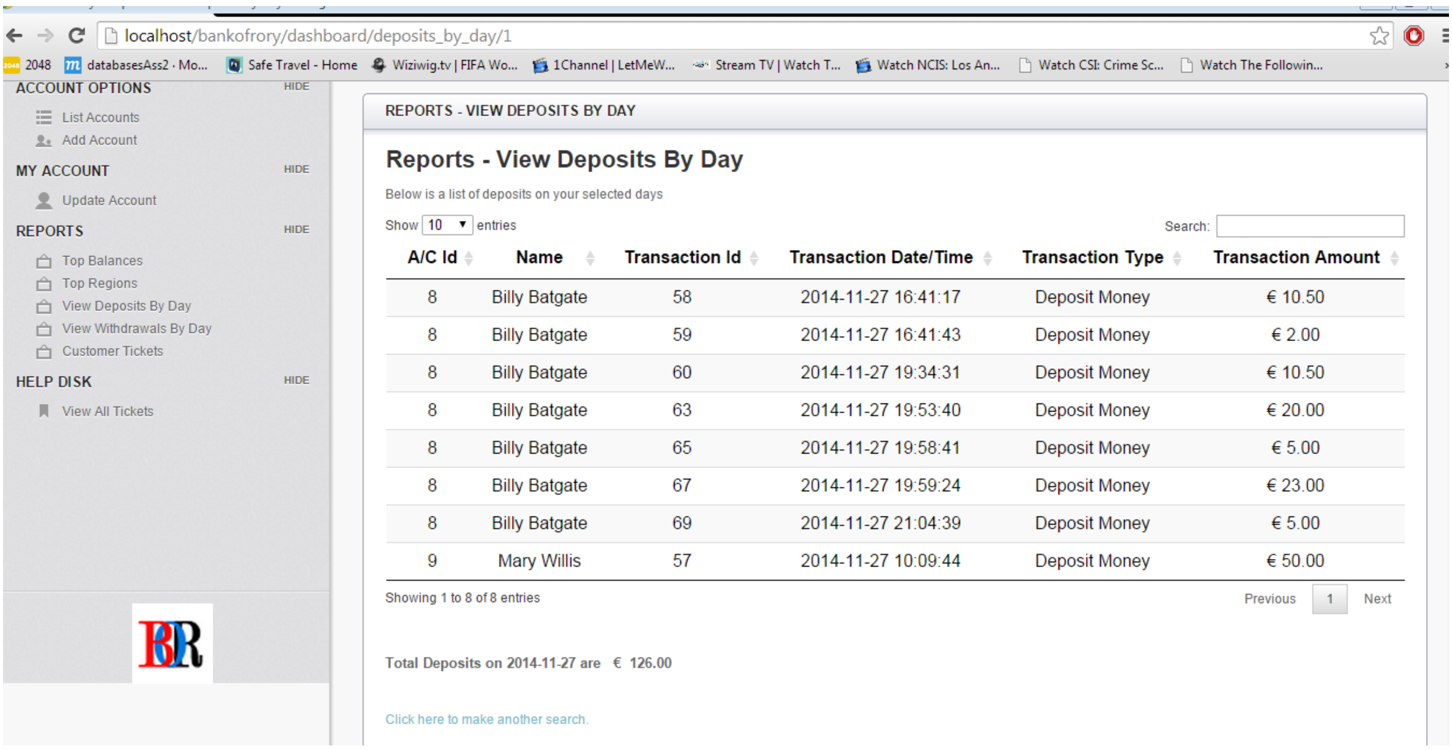
Fig. 20 - Select Day Page

Figure 21 below shows the code used to call the GET_DEPOSIT_DATE procedure. Figure 22 show the output of the report as it would be viewed by the admin role.



```php
// Display report 2 - View Deposits By Day
function displayDeposits($value){

    $app = Slim\Slim::getInstance();
    $db = dbConn::getConnection();

    $request = $app->request();
    // Take the date in form the user.
    $search_date = trim($request->post('input_date'));

    $user_details = getAccount($value);

    $db = dbConn::getConnection();
    // Call the Get Deposit Date Function
    $dates_query = "Call GET_DEPOSIT_DATE('".$search_date."')";

    $dates_res = $db->query($dates_query);
    $deposits = $dates_res->fetchAll(PDO::FETCH_ASSOC);

    // Put the result on to the page so it can be accessed by the html and the php.
    $app->render('../api/resources/report_dep_day.php', array('user' => $user_details,'deposits'=>$deposits));
}
```

Fig. 21 – Display Deposit function



Reports - View Deposits By Day

Below is a list of deposits on your selected days

A/C Id	Name	Transaction Id	Transaction Date/Time	Transaction Type	Transaction Amount
8	Billy Batgate	58	2014-11-27 16:41:17	Deposit Money	€ 10.50
8	Billy Batgate	59	2014-11-27 16:41:43	Deposit Money	€ 2.00
8	Billy Batgate	60	2014-11-27 19:34:31	Deposit Money	€ 10.50
8	Billy Batgate	63	2014-11-27 19:53:40	Deposit Money	€ 20.00
8	Billy Batgate	65	2014-11-27 19:58:41	Deposit Money	€ 5.00
8	Billy Batgate	67	2014-11-27 19:59:24	Deposit Money	€ 23.00
8	Billy Batgate	69	2014-11-27 21:04:39	Deposit Money	€ 5.00
9	Mary Willis	57	2014-11-27 10:09:44	Deposit Money	€ 50.00

Showing 1 to 8 of 8 entries

Total Deposits on 2014-11-27 are € 126.00

Click here to make another search.

Fig. 22 – View Deposits by Day Report

Report 4 – View Withdrawals by Date

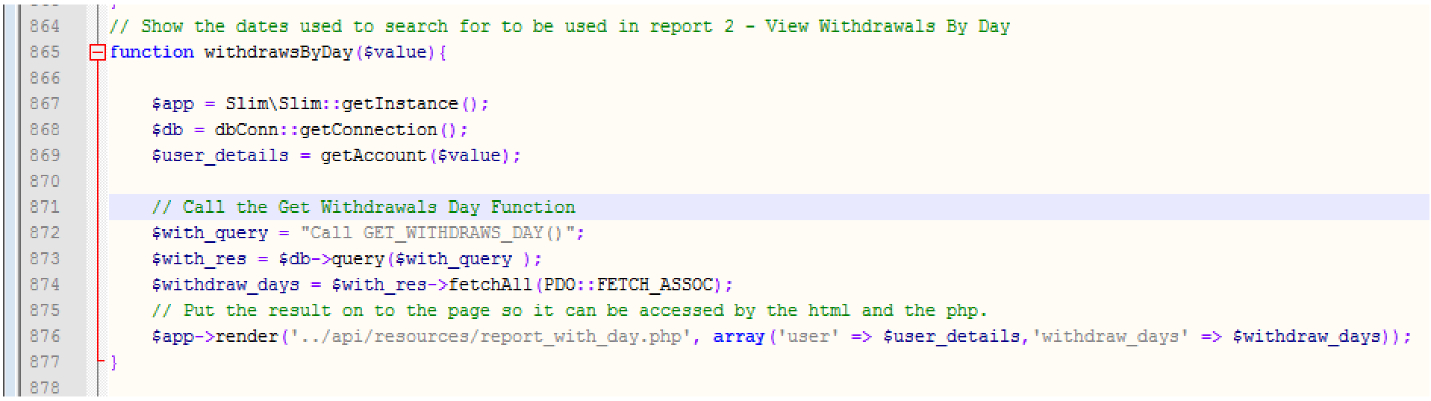
The GET_WITHDRAWS_DAY procedure below is used to generate a list of dates that withdrawal transactions have been made on. This data is used in a selection list and the selection form this list goes in to the GET_WITHDRAW_DATE procedure to generate the data for the “view withdrawals by day section” report.

```
CREATE DEFINER=`root`@`localhost` PROCEDURE `GET_WITHDRAWS_DAY`()
BEGIN
SELECT  DISTINCT(DATE(t.transactions_time)) as dates FROM transactions as t
WHERE t.transaction_type = 'Withdraw Money';
END$$
```

The GET_WITHDRAW_DATE procedure below is used to get the withdrawal by date. This data is used in the reports section of the admin role under the “view withdrawals by day section”. This data is a combination of data across three table. I have left out the first two users as they are the admin and the support staff accounts.

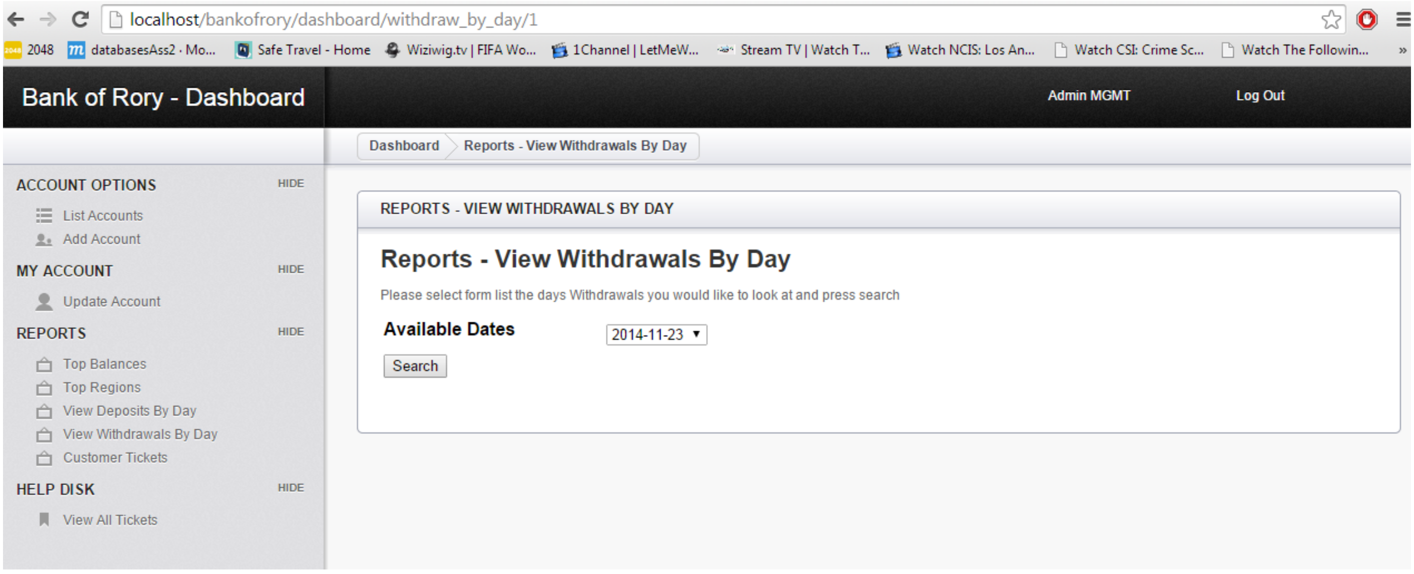
```
CREATE DEFINER=`root`@`localhost` PROCEDURE
`GET_WITHDRAW_DATE`(search_date varchar(255))
BEGIN
SELECT a.id, u.first_name, u.last_name,t.transaction_id, t.transactions_time,
t.transaction_type, t.transaction_amount FROM
transactions as t JOIN account as a JOIN users as u where a.users_account_no =
u.account_no AND a.id = t.account_id AND u.user_roles_role_id > 2
AND STR_TO_DATE( search_date,  '%Y-%m-%d' ) = DATE(t.transactions_time) AND
t.transaction_type = 'Withdraw Money';
END$$
```

Figure 23 below shows the code used to call the GET_WITHDRAWS_DAY procedure. Figure 24 show the output of the GET_WITHDRAWS_DAY procedure report as it would be viewed by the admin role.



```
// Show the dates used to search for to be used in report 2 - View Withdrawals By Day
function withdrawsByDay($value){

    $app = Slim\Slim::getInstance();
    $db = dbConn::getConnection();
    $user_details = getAccount($value);

    // Call the Get Withdrawals Day Function
    $with_query = "Call GET_WITHDRAWS_DAY()";
    $with_res = $db->query($with_query );
    $withdraw_days = $with_res->fetchAll(PDO::FETCH_ASSOC);
    // Put the result on to the page so it can be accessed by the html and the php.
    $app->render('../api/resources/report_with_day.php', array('user' => $user_details,'withdraw_days' => $withdraw_days));
}
```

Fig. 23 – Code for the withdraws by day function



localhost/bankofrory/dashboard/withdraw_by_day/1

REPORTS - VIEW WITHDRAWALS BY DAY

Reports - View Withdrawals By Day

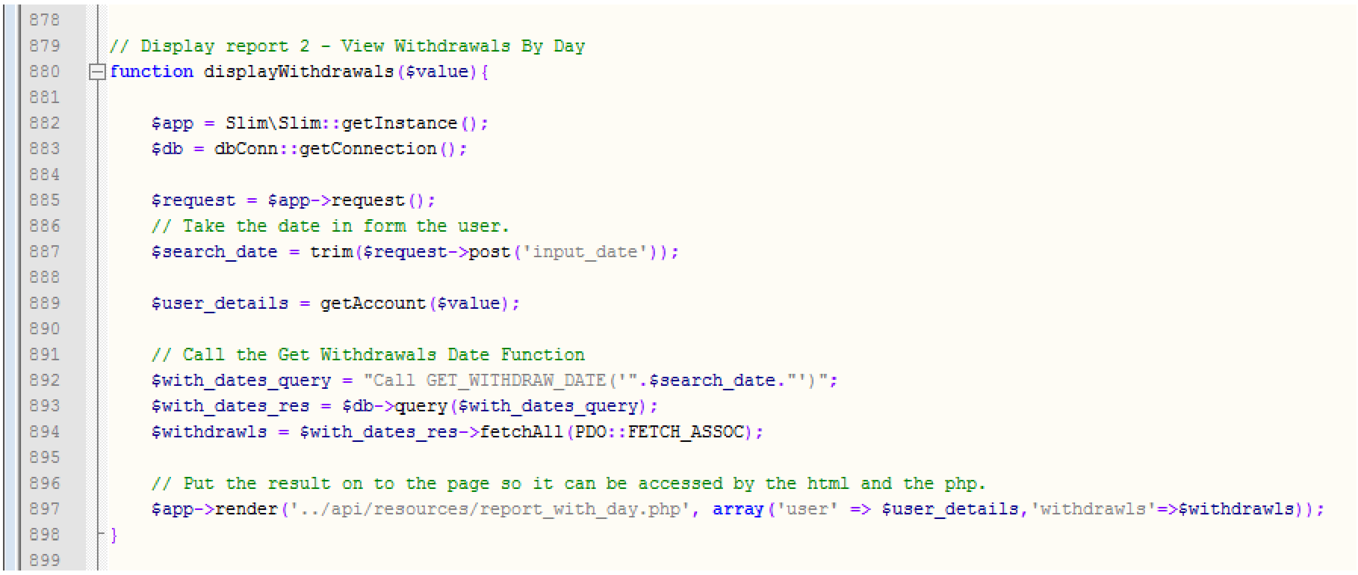
Please select form list the days Withdrawals you would like to look at and press search

Available Dates 2014-11-23 ▾

Search

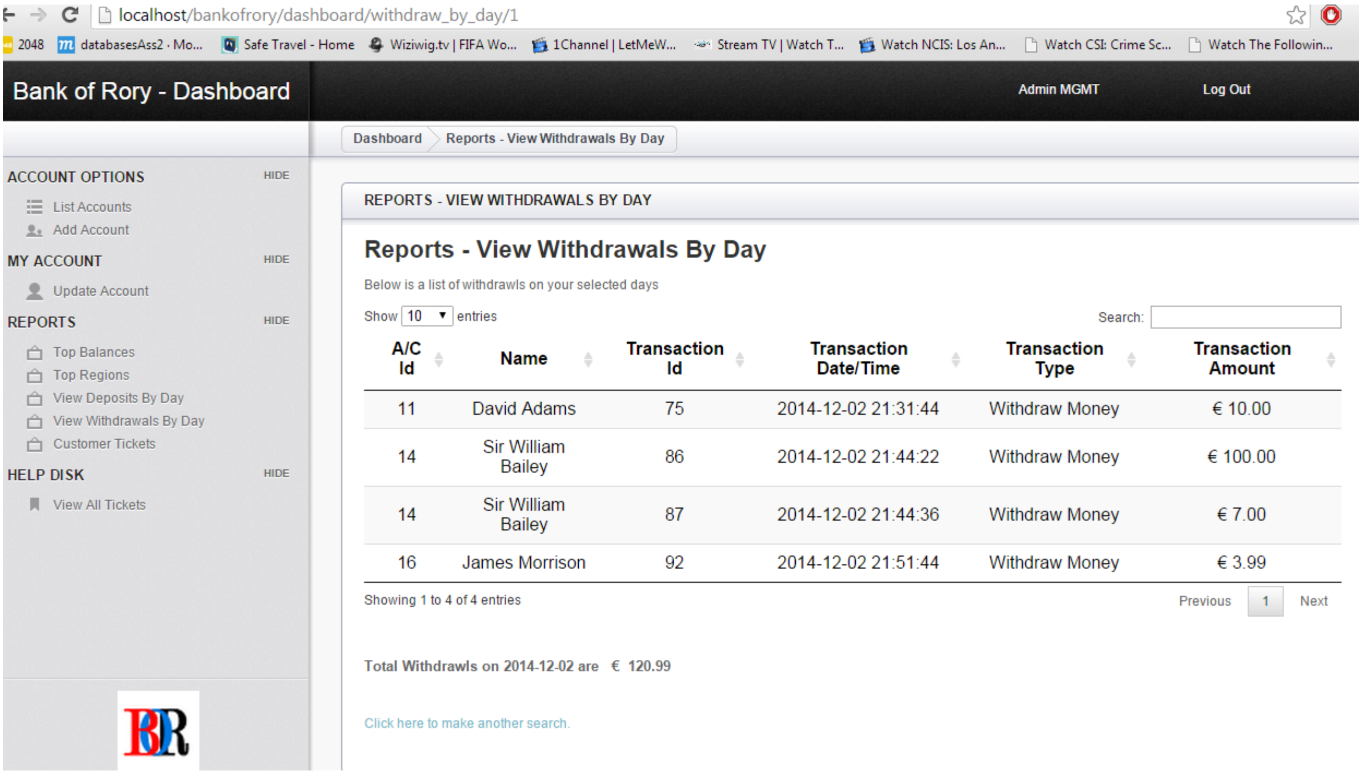
Fig. 24 – Select Day Page

Figure 25 below shows the code used to call the GET_WITHDRAW_DATE procedure. Figure 26 show the output of the report as it would be viewed by the admin role.



```
// Display report 2 - View Withdrawals By Day
function displayWithdrawals($value){

    $app = Slim\Slim::getInstance();
    $db = dbConn::getConnection();

    $request = $app->request();
    // Take the date in form the user.
    $search_date = trim($request->post('input_date'));

    $user_details = getAccount($value);

    // Call the Get Withdrawals Date Function
    $with_dates_query = "Call GET_WITHDRAW_DATE('".$search_date."')";
    $with_dates_res = $db->query($with_dates_query);
    $withdrawls = $with_dates_res->fetchAll(PDO::FETCH_ASSOC);

    // Put the result on to the page so it can be accessed by the html and the php.
    $app->render('../api/resources/report_with_day.php', array('user' => $user_details,'withdrawls'=>$withdrawls));
}
```

Fig. 25 – Code for the display withdrawals page



Reports - View Withdrawals By Day

Below is a list of withdrawls on your selected days

A/C Id	Name	Transaction Id	Transaction Date/Time	Transaction Type	Transaction Amount
11	David Adams	75	2014-12-02 21:31:44	Withdraw Money	€ 10.00
14	Sir William Bailey	86	2014-12-02 21:44:22	Withdraw Money	€ 100.00
14	Sir William Bailey	87	2014-12-02 21:44:36	Withdraw Money	€ 7.00
16	James Morrison	92	2014-12-02 21:51:44	Withdraw Money	€ 3.99

Showing 1 to 4 of 4 entries

Total Withdrawls on 2014-12-02 are € 120.99

Click here to make another search.

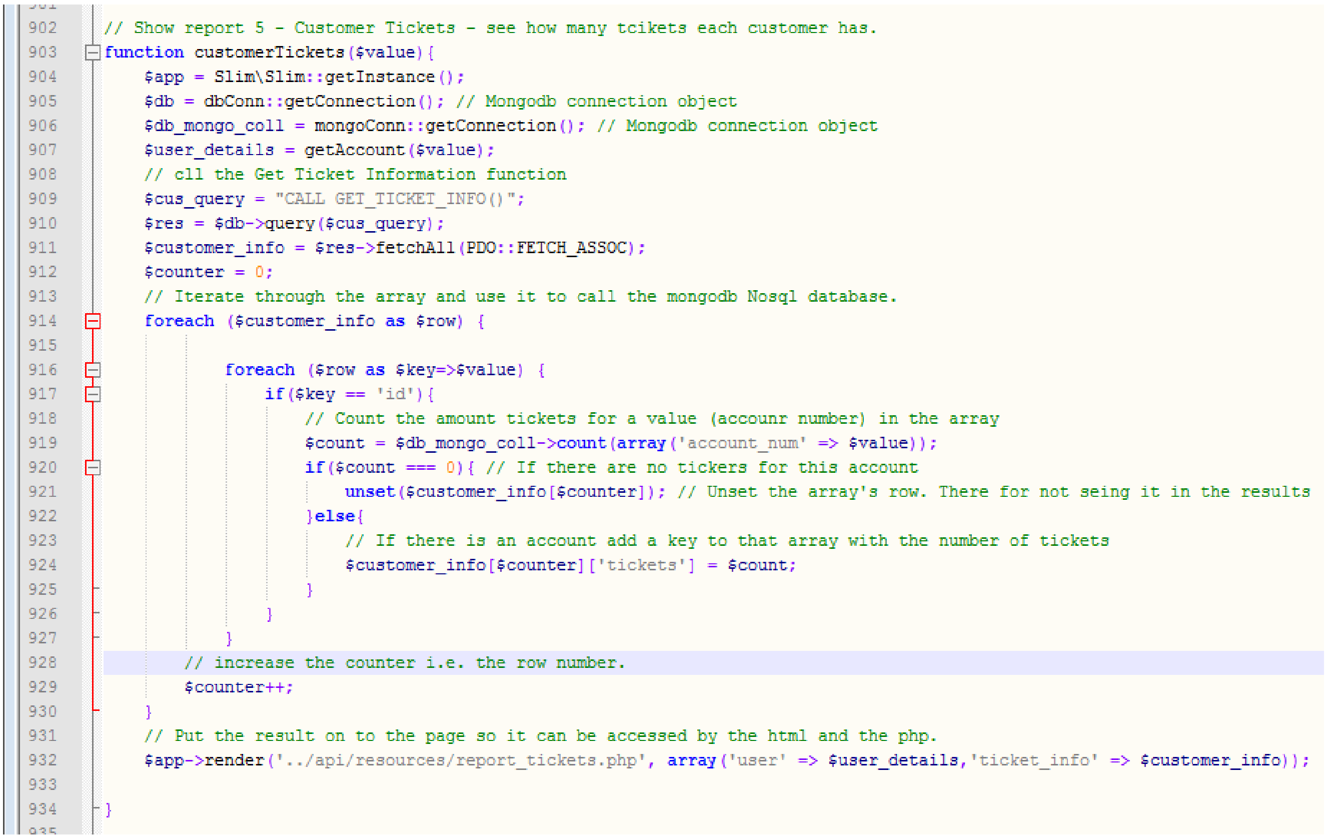
Fig. 26 – View Withdrawals by Day Report

Report 5 – Customer Tickets

The GET_TICKET_INFO procedure below gets the account information for all users. The account number field is then used to query the NoSQL database. The query will count the number of tickets for each user and delete the users with zero tickets and only leave the accounts with countable tickets. Then the associative array will be changed by adding in an extra key value of ticket and the count of tickets to each row. Then this data is used in the "Customer Ticket" report. This code will be covered in another section on the reports.

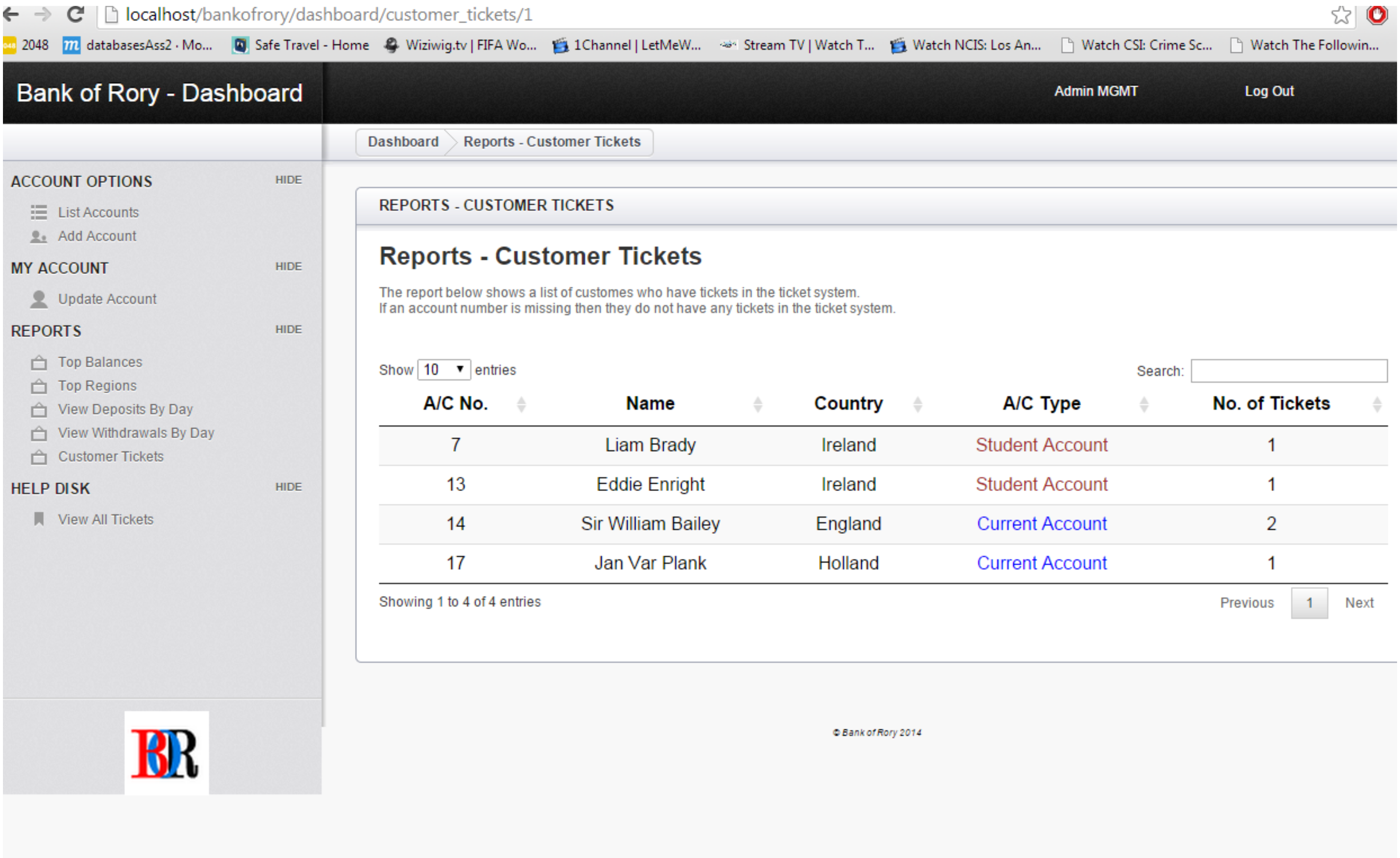
```
CREATE DEFINER=`root`@`localhost` PROCEDURE `GET_TICKET_INFO`()
BEGIN
SELECT a.id,u.first_name,u.last_name,u.country,at.type FROM users as u join
account as a join account_type as at WHERE u.account_no = a.users_account_no
AND a.account_type_id = at.id AND u.user_roles_role_id > 2 group by a.id;
END$$
```

Figure 27 below shows the code used to call the GET_TICKET_INFO procedure. Figure 28 show the output of the report as it would be viewed by the admin role.



```
// Show report 5 - Customer Tickets - see how many tcikets each customer has.
function customerTickets($value){
    $app = Slim\Slim::getInstance();
    $db = dbConn::getConnection(); // Mongodb connection object
    $db_mongo_coll = mongoConn::getConnection(); // Mongodb connection object
    $user_details = getAccount($value);
    // cll the Get Ticket Information function
    $cus_query = "CALL GET_TICKET_INFO()";
    $res = $db->query($cus_query);
    $customer_info = $res->fetchAll(PDO::FETCH_ASSOC);
    $counter = 0;
    // Iterate through the array and use it to call the mongodb Nosql database.
    foreach ($customer_info as $row) {

            foreach ($row as $key=>$value) {
                if($key == 'id'){
                    // Count the amount tickets for a value (accounr number) in the array
                    $count = $db_mongo_coll->count(array('account_num' => $value));
                    if($count === 0){ // If there are no tickers for this account
                        unset($customer_info[$counter]); // Unset the array's row. There for not seing it in the results
                    }else{
                        // If there is an account add a key to that array with the number of tickets
                        $customer_info[$counter]['tickets'] = $count;
                    }
                }
            }
        // increase the counter i.e. the row number.
        $counter++;
    }
    // Put the result on to the page so it can be accessed by the html and the php.
    $app->render('../api/resources/report_tickets.php', array('user' => $user_details,'ticket_info' => $customer_info));

}
```

Fig. 26 – Code to run the Customer Tickets function



Reports - Customer Tickets

The report below shows a list of customes who have tickets in the ticket system.
If an account number is missing then they do not have any tickets in the ticket system.

A/C No.	Name	Country	A/C Type	No. of Tickets
7	Liam Brady	Ireland	Student Account	1
13	Eddie Enright	Ireland	Student Account	1
14	Sir William Bailey	England	Current Account	2
17	Jan Var Plank	Holland	Current Account	1

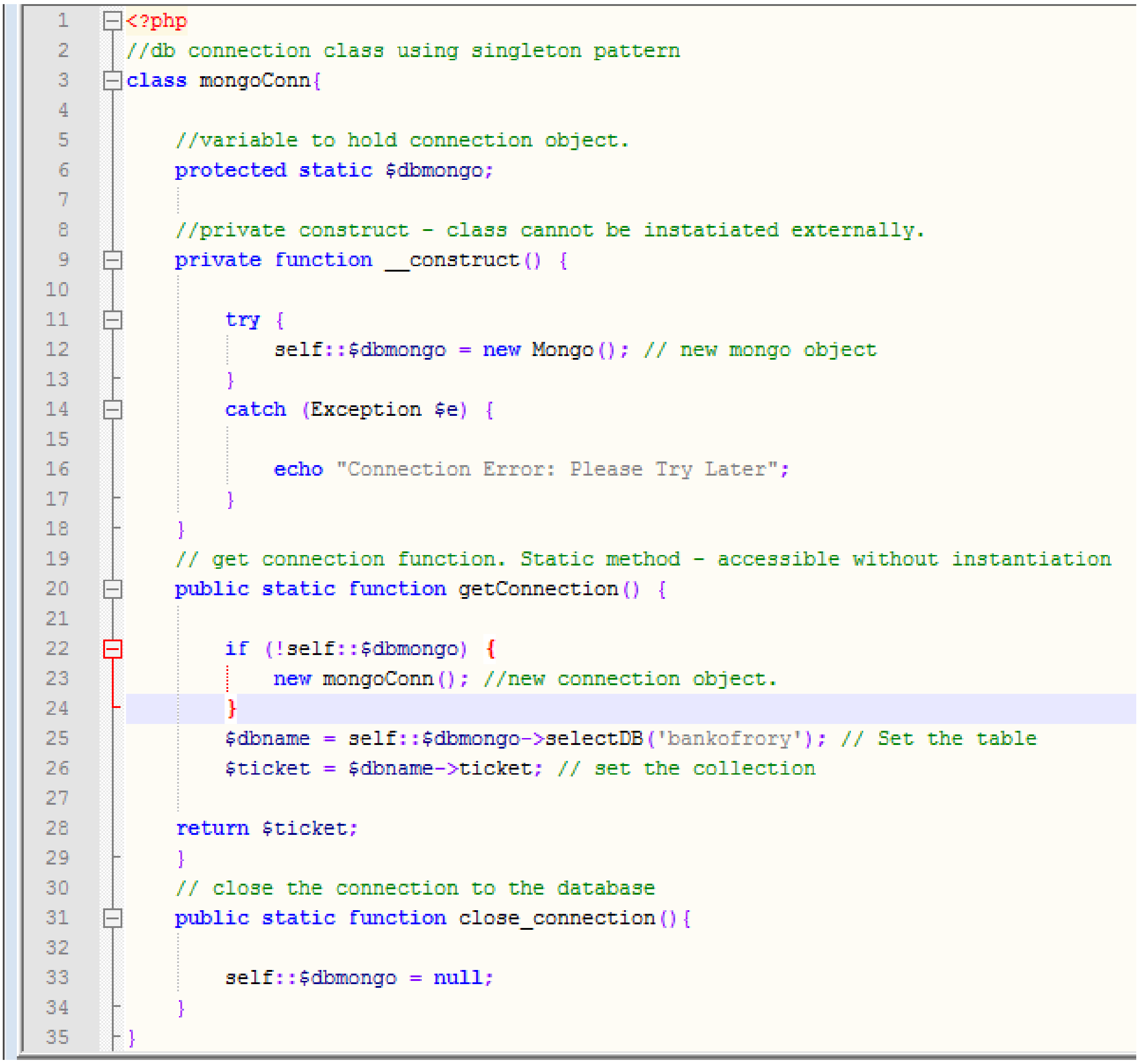
Showing 1 to 4 of 4 entries

Fig. 27 – Viewing the Customer Ticket Report

NoSQL Section

I incorporated Mongodb in to my project. Mongodb is a NoSQL database. I am using the 64 bit version of it as I have a 64bit laptop. I am using Mongodb to store a collection of support tickets that are generated by a user. The user can open a ticket in the open ticket section on the sidebar and sent the enquiry to the support desk. The support desk views the opened tickets and changes the statues to “Review” of the ticket. This is done so as to let the user know that the ticket is been worked on. When the ticket is fully investigated the support desk can then send a reply to the user and close the ticket. The user can view the reply to the ticket in the view ticket section on the side bar. The following screen shots show how this was achieved.

Figure 28 below show the database connect using a singleton pattern. I also use this same pattern in the MySQL database.



```php
<?php
//db connection class using singleton pattern
class mongoConn{

    //variable to hold connection object.
    protected static $dbmongo;

    //private construct - class cannot be instatiated externally.
    private function __construct() {

        try {
            self::$dbmongo = new Mongo(); // new mongo object
        }
        catch (Exception $e) {

            echo "Connection Error: Please Try Later";
        }
    }
    // get connection function. Static method - accessible without instantiation
    public static function getConnection() {

        if (!self::$dbmongo) {
            new mongoConn(); //new connection object.
        }
        $dbname = self::$dbmongo->selectDB('bankofrory'); // Set the table
        $ticket = $dbname->ticket; // set the collection

    return $ticket;
    }
    // close the connection to the database
    public static function close_connection(){

        self::$dbmongo = null;
    }
}
```

Fig. 28 - Mongodb Connection Class

Of note here is that the _id is given automatically to the ticket on ticket creation.

The following are a list of the called I used to connect to the database.

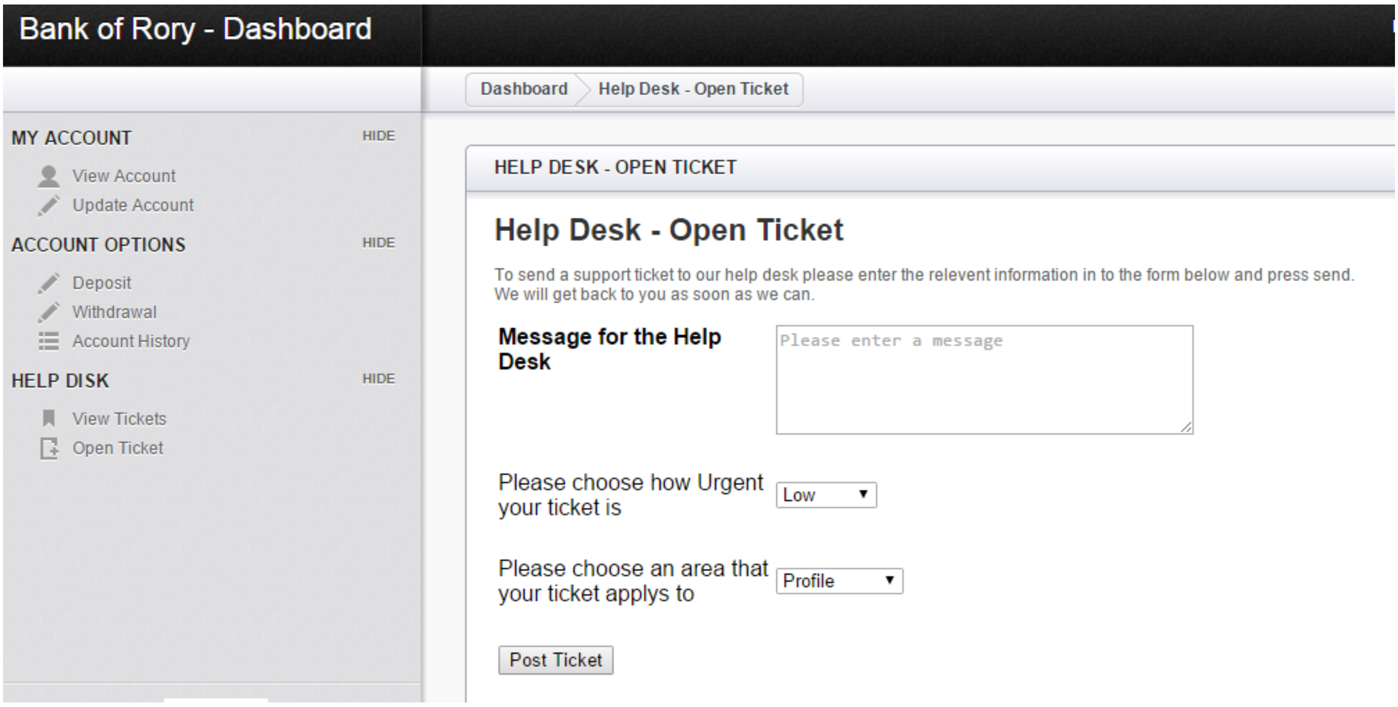
Connect to the Mongodb connection object

$db_mongo_coll = mongoConn::getConnection(); // Get a collection object

Insert a new ticket

For the below query the relevant data was taken in form a form post and inserted in to the query. Figure 29 below shows the form that needs to be filled out to open a ticket.

```
        $result = $db_mongo_coll->insert(array(
                                        'ts' => new MongoDate(),
                                        'account_num'=>$account_num,
                                        'name'=>$fname.' '.$lname,
                                        'message'=>$message ,
                                        'area'=>$area ,
                                        'priority'=>$priority,
                                        'status'=>$status
                              ));
```



Help Desk - Open Ticket

To send a support ticket to our help desk please enter the relevent information in to the form below and press send. We will get back to you as soon as we can.

Message for the Help Desk: Please enter a message

Please choose how Urgent your ticket is: Low ▾

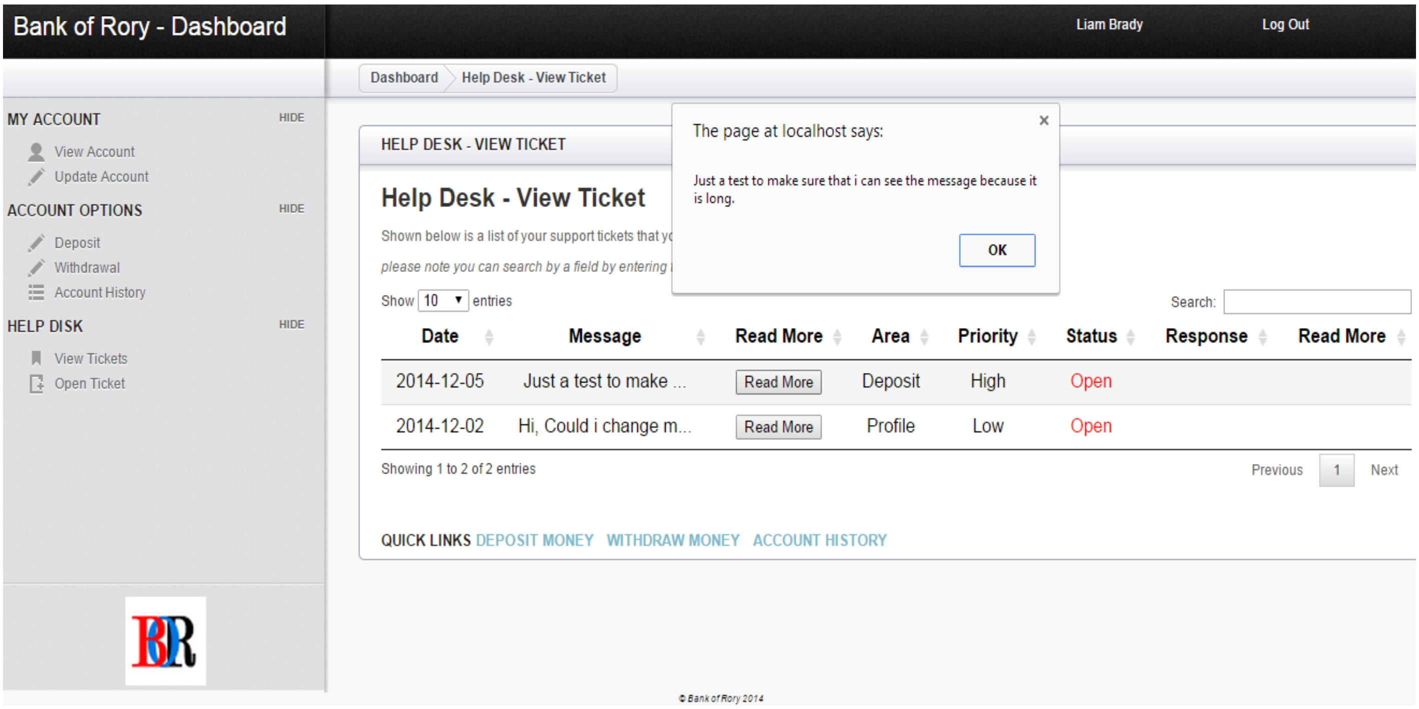
Please choose an area that your ticket applys to: Profile ▾

Fig. 29 – Help Desk – Open Ticket Form

View the tickets

The account number of the user as stored in the ticket was searched for and then a associative array was returned in to the $user_tickets variable. The data was then accessed on the page after it was rendered. Figure 30 below show the view the user would see of their tickets.

```
        $user_tickets = $db_mongo_coll->find(array('account_num'=> $user_details['id'] ))-
        >sort(array('_id' => -1));

        $app->render('../api/resources/view_ticket.php', array('user' =>
        $user_details,'tickets' => $user_tickets));
```



HELP DESK - VIEW TICKET

Help Desk - View Ticket

Shown below is a list of your support tickets that yo

please note you can search by a field by entering

The page at localhost says:

Just a test to make sure that i can see the message because it is long.

Date	Message	Read More	Area	Priority	Status	Response	Read More
2014-12-05	Just a test to make ...	Read More	Deposit	High	Open		
2014-12-02	Hi, Could i change m...	Read More	Profile	Low	Open		

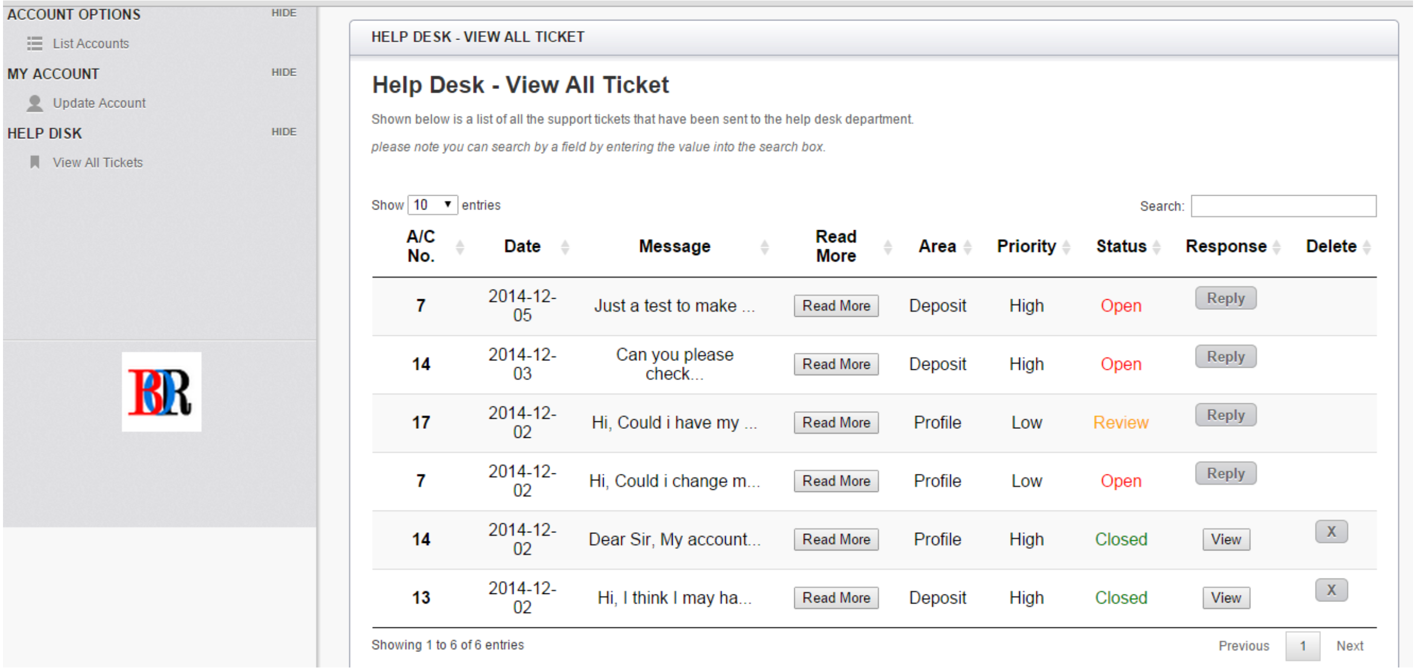
Showing 1 to 2 of 2 entries

Fig. 30 – Help Desk – View Tickets of a chosen user. The pop up is used to show all the message to the user in case the message is too long.

View all the tickets

Here I need to show all the tickets to the support desk and I also wanted to show them in reverse order i.e. the newest one first. Figure 31 show the view the user support user sees when viewing all the tickets.

```
$user_tickets = $db_mongo_coll->find()->sort(array('_id' => -1));
```



Help Desk - View All Ticket

Shown below is a list of all the support tickets that have been sent to the help desk department.

please note you can search by a field by entering the value into the search box.

Show 10 entries Search:

A/C No.	Date	Message	Read More	Area	Priority	Status	Response	Delete
7	2014-12-05	Just a test to make ...	Read More	Deposit	High	Open	Reply	
14	2014-12-03	Can you please check...	Read More	Deposit	High	Open	Reply	
17	2014-12-02	Hi, Could i have my ...	Read More	Profile	Low	Review	Reply	
7	2014-12-02	Hi, Could i change m...	Read More	Profile	Low	Open	Reply	
14	2014-12-02	Dear Sir, My account...	Read More	Profile	High	Closed	View	X
13	2014-12-02	Hi, I think I may ha...	Read More	Deposit	High	Closed	View	X

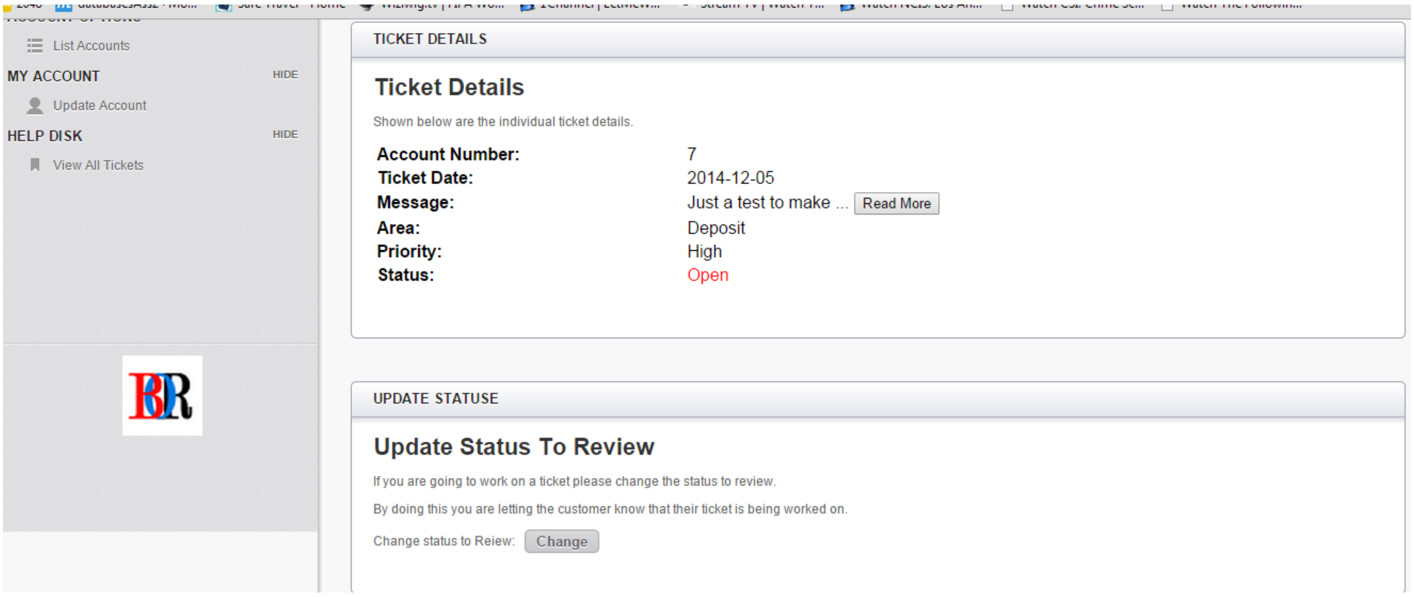
Showing 1 to 6 of 6 entries

Fig. 31 – Help Desk – View All Tickets page

Find one ticket by the id number

I also wanted to be able to find the individual tickets. I needed to do this to be able to update the status key. Figure 32 below shows the details of the ticket and the view that the support desk see.

```
$user_ticket = $db_mongo_coll->findOne(array('_id'=> new MongoId($ticket_id )));
```



Ticket Details

Shown below are the individual ticket details.

Account Number:	7
Ticket Date:	2014-12-05
Message:	Just a test to make ... Read More
Area:	Deposit
Priority:	High
Status:	Open

Update Status To Review

If you are going to work on a ticket please change the status to review.

By doing this you are letting the customer know that their ticket is being worked on.

Change status to Reiew: Change

Fig. 32 – Ticket Details page including the Update Status section

Update the ticket

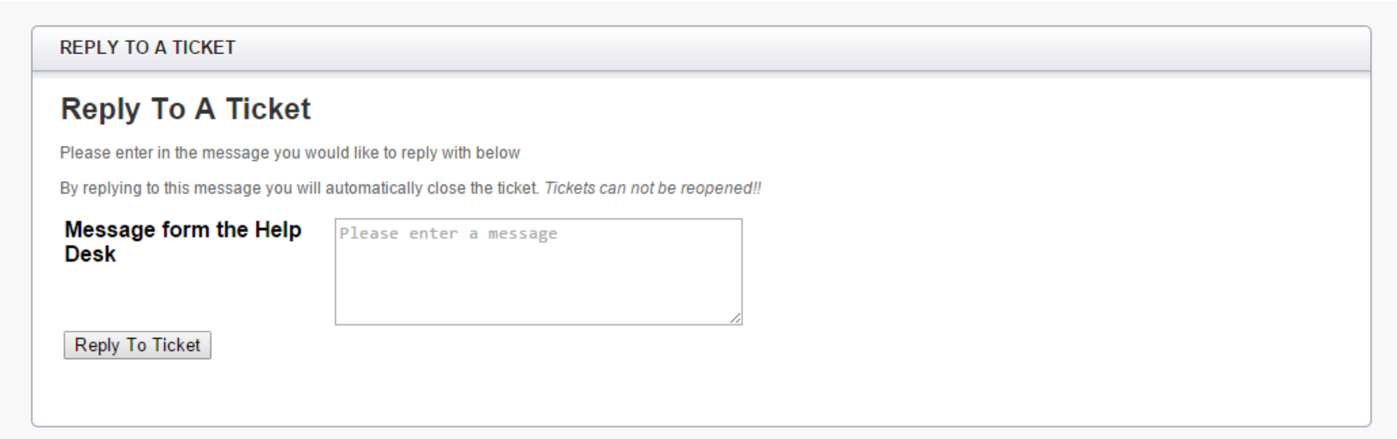
Below is the code that I used to update the status key to “Review”. The update function takes two parts. First it takes the id of the ticket and the takes an array with a reserves keyword '$set' as a key that is also an array. In the inner array I am changing or setting the status. Figure 32above shows the update status to review section at the bottom of the screen shot.

```
$newStatus = array('$set' =>array("status"=> "Review"));

$update_result = $db_mongo_coll->update(array("_id"=>new MongoId($ticket_id )),
$newStatus);
```

Add a new key word into the collection

I used a very similar command to do the following as I did in the update the ticket section. The difference here is that when I pass in the “response” keyword and it does not exist in the collection it will create the new key word and add the data. Figure 33 show the form to be able to reply to a message.

```
$newStatus = array('$set' =>array("status"=> "Closed","response"=>$message));

                $update_result = $db_mongo_coll->update(array("_id"=>new
MongoId($ticket_id )), $newStatus);
```



REPLY TO A TICKET

Reply To A Ticket

Please enter in the message you would like to reply with below

By replying to this message you will automatically close the ticket. *Tickets can not be reopened!!*

Message form the Help Desk

Fig. 33 – Reply to a ticket section.

Count the number of tickets belonging to an account.

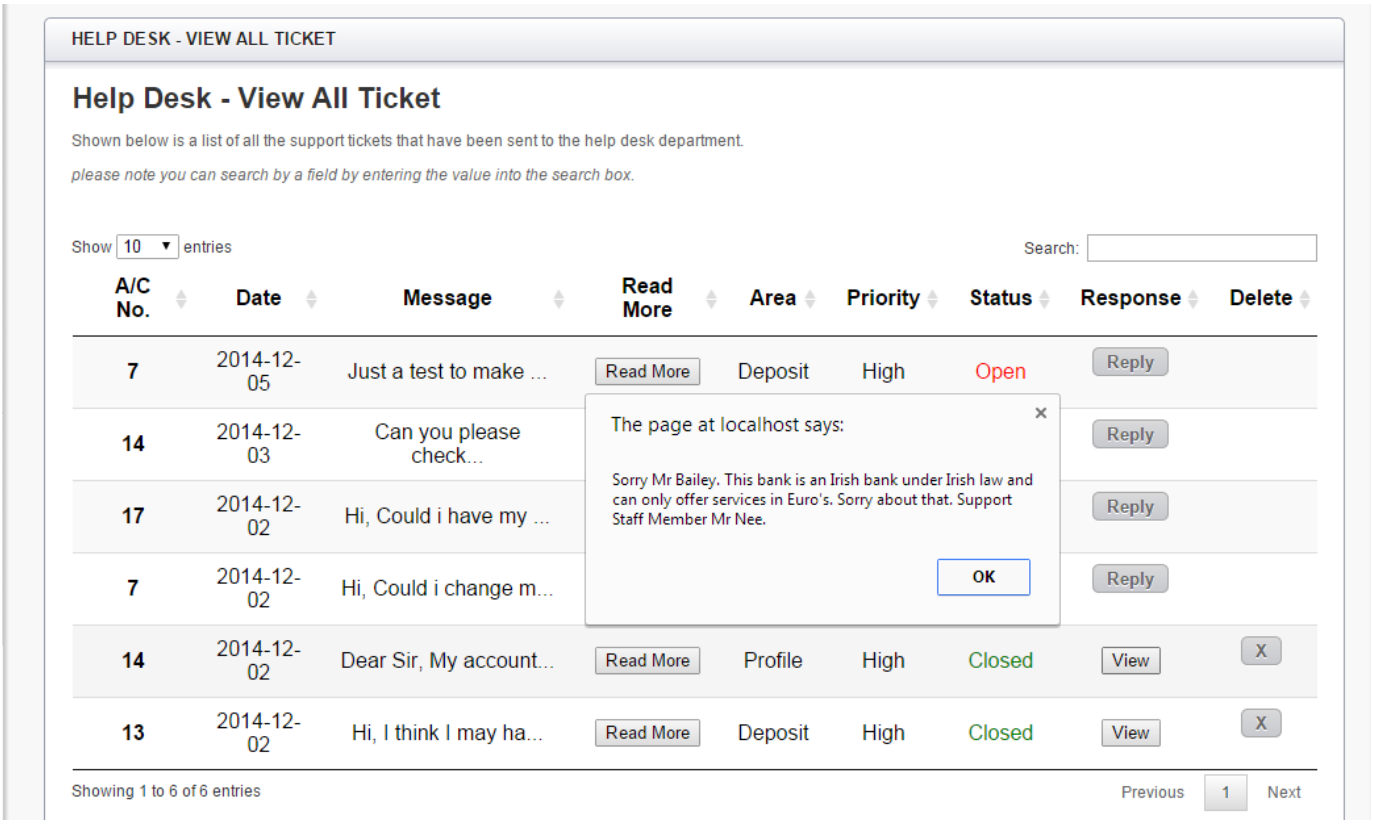
This is used in producing report 5 i.e. customer tickets.

```
$count = $db_mongo_coll->count(array('account_num' => $value));
```

Delete an individual ticket

Here is how I deleted an individual ticket for the collection. At the end of the query I have passed in the Boolean true which means only do the one and the any others that match the id. Figure 34 show the delete button at the end of the view all tickets list. We also see a view button here to view the reply. This is also similar to the way the user see the reply on their screen.

```
$db_mongo_coll->remove(array('_id' => new MongoId($ticket_id)), true);
```



HELP DESK - VIEW ALL TICKET

Help Desk - View All Ticket

Shown below is a list of all the support tickets that have been sent to the help desk department.

please note you can search by a field by entering the value into the search box.

Show 10 entries Search:

A/C No.	Date	Message	Read More	Area	Priority	Status	Response	Delete
7	2014-12-05	Just a test to make ...	Read More	Deposit	High	Open	Reply	
14	2014-12-03	Can you please check...					Reply	
17	2014-12-02	Hi, Could i have my ...					Reply	
7	2014-12-02	Hi, Could i change m...					Reply	
14	2014-12-02	Dear Sir, My account...	Read More	Profile	High	Closed	View	X
13	2014-12-02	Hi, I think I may ha...	Read More	Deposit	High	Closed	View	X

Showing 1 to 6 of 6 entries Previous 1 Next

The page at localhost says:

Sorry Mr Bailey. This bank is an Irish bank under Irish law and can only offer services in Euro's. Sorry about that. Support Staff Member Mr Nee.

OK

Fig. 34 – Delete a Ticket button.

Delete all the Tickets belonging to an account

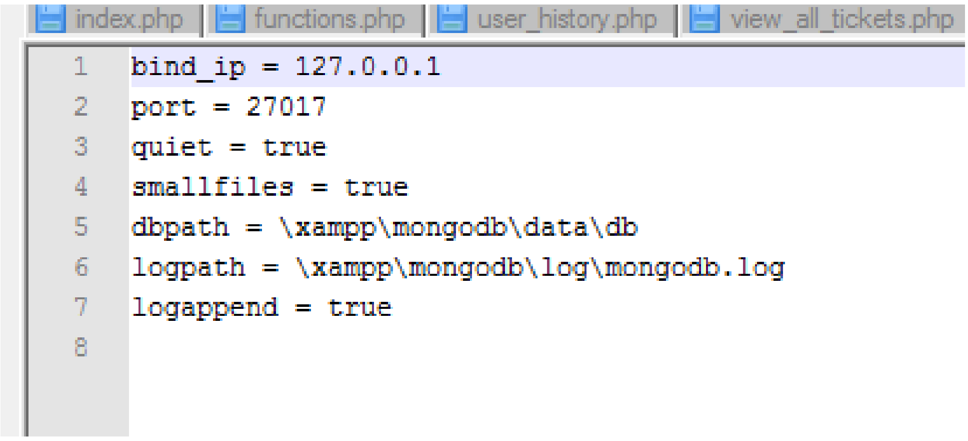
In this case I do not pass a Boolean true value to the query because I want to delete all the tickets that match this account number.

```
$db_mongo_coll->remove(array('account_num' => $acc_no));
```

Closing the connection to the database

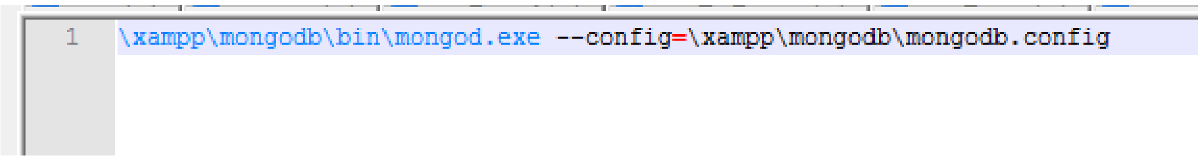
```
mongoConn::close_connection();
```

The following screen shot show how the mongodb demon was set up and how the mongo configuration file was also set up.



```
bind_ip = 127.0.0.1
port = 27017
quiet = true
smallfiles = true
dbpath = \xampp\mongodb\data\db
logpath = \xampp\mongodb\log\mongodb.log
logappend = true

```

Fig. 35 mongo.config file



```
\xampp\mongodb\bin\mongod.exe --config=\xampp\mongodb\mongodb.config
```

Fig 36 mongostartdemon.bat

File Descriptions

Below is a list of all the files that I have written and that I have included in the appendix. There are a number of files that belong to bootstrap, Slim Framework and medialoot admin template that I may have changed slightly but not rewritten. I feel there is no need in adding them in here or including them in the appendix. All the below files can be found in the appendix under “appendix - *filename*”.

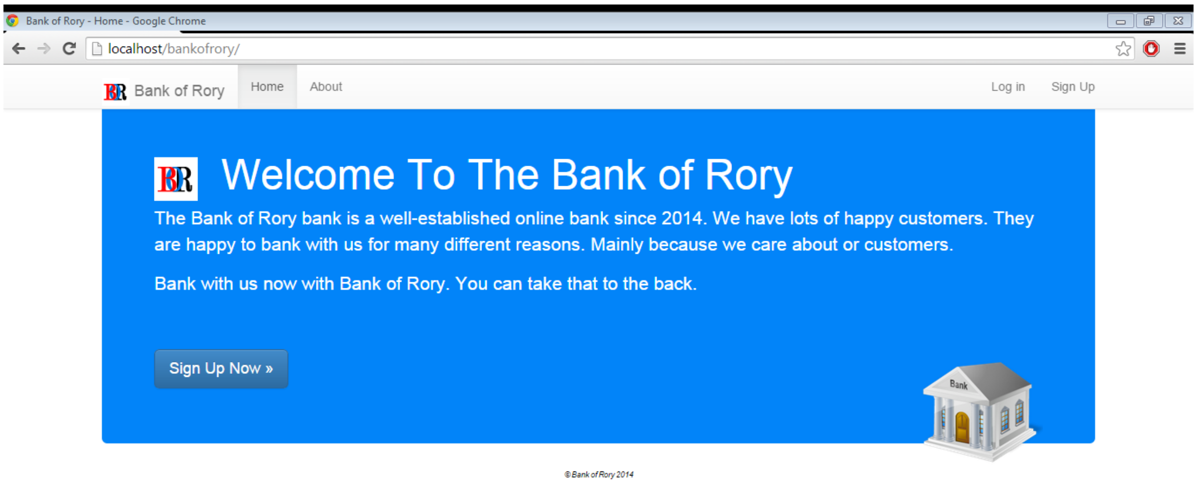
File Names	**File Description**
Database Dump	This file is a MySQL dump of all the data to rebuild the database.
Mongodb Dump	This file is a Mongodb NoSql dump of the data in the bankofrory database.
Index.php File	This is the main file used to run the Slim Framework. All the URL routes are mentioned in this file. All the routs have associated function. This can be found in the functions file, access file or the static_fn file.
Api Folder	File Location
functions.php	The function file has all the function used for each URL. Each function is called to either display the date on the page or to take in the data from a form and then display a page. All validation and database calls are done with in these functions.
database.php	MySQL Database Singleton Class to create a single instance of the database.
database_mongo.php	NoSQL Database Singleton Class to create a single instance of the database.
Js Folder	
mystyles.js	This is the JavaScript file used by mainly the backend for displaying the data tables.
Css Folder	
mystyles.css	This is my main CSS file. Any extra CSS can be found in this file
Api Folder	
static_fn.php	This file looks after the display of the front end static pages. This file has some functions that relate to URL that are in the index file.
access.php	The access file looks after login validation, logging out and also has a standard error message that will pop up whenever someone not logged in

	tries to view a URL or when a user without admin role tries to view a admin role URL.
Api/resources/view folder	
header.php	This is a separate header file that is included on each static page.
footer.php	This is a separate footer file that is included on each static page.
header_dash.php	This is a separate header for the dashboard that is included on each of the backend pages.
footer_dash.php	This is a separate footer for the dashboard that is included on each of the backend pages.
side_bar.php	This is a separate sidebar file for the dashboard that is included on each of the backend pages. Different users see a different sidebar depending on their role.
Api/resources folder	
adout.php	This is the html/php file including embedded php that shows the about page.
addaccount.php	This is the html/php file including embedded php that show the add account page for the admin role.
deposit.php	This is the html/php file including embedded php that show the deposit page for the user role. Admin and support staff cannot deposit or withdraw money.
error.php	This is the html/php file including embedded php that shows the error page.
login.php	This is the html/php file including embedded php that shows the login page.
main.php	This is the html/php file including embedded php that shows the home page.
open_ticket.php	This is the html/php file including embedded php that shows the open ticket form page.
reply_ticket.php	This is the html/php file including embedded php that shows the reply ticket form page.

report_dep_day.php	This is the html/php file including embedded php that shows the report page for the view deposits by day. This is also the page that you select the data you would like to view the deposits on.
report_ticket.php	This is the html/php file including embedded php that shows the report page for the customer tickets report.
report_top_bal.php	This is the html/php file including embedded php that shows the report page for the top balances report.
report_top_reg.php	This is the html/php file including embedded php that shows the report page for the top region report.
report_with_day.php	This is the html/php file including embedded php that shows the report page for the view withdrawals by day. This is also the page that you select the data you would like to view the withdrawals on.
signup.php	This is the html/php file including embedded php that shows the signup page
user_account.php	This is the landing page for when a user, admin or support role logs in. Depending on their role the page will look differently to them.
user_details.php	This is the show user page. This will look different to all users. Firstly user will see it in the most basic way. The admin and support page will see slightly different styles. Also the admin and the support role will have access to all other user details pages.
user_history.php	This is the html/php file including embedded php that shows the transactions history page.
view_all_tickets.php	Only the admin and the support section have access to this page. This page is where the admin or support staff can view all the current tickets. They can see all users tickets.
view_ticket.php	The view ticket page is only viewed by the user page. They see only their own tickets.
withdrawal.php	This is the html/php file including embedded php that show the withdrawal page for the user role. Admin and support staff cannot deposit or withdraw money.

Screen Shots

I will not be showing all screen shots here as there is a lot of other screen shots throughout this document. I will try and screen shot only pages that have not been screen shot already.

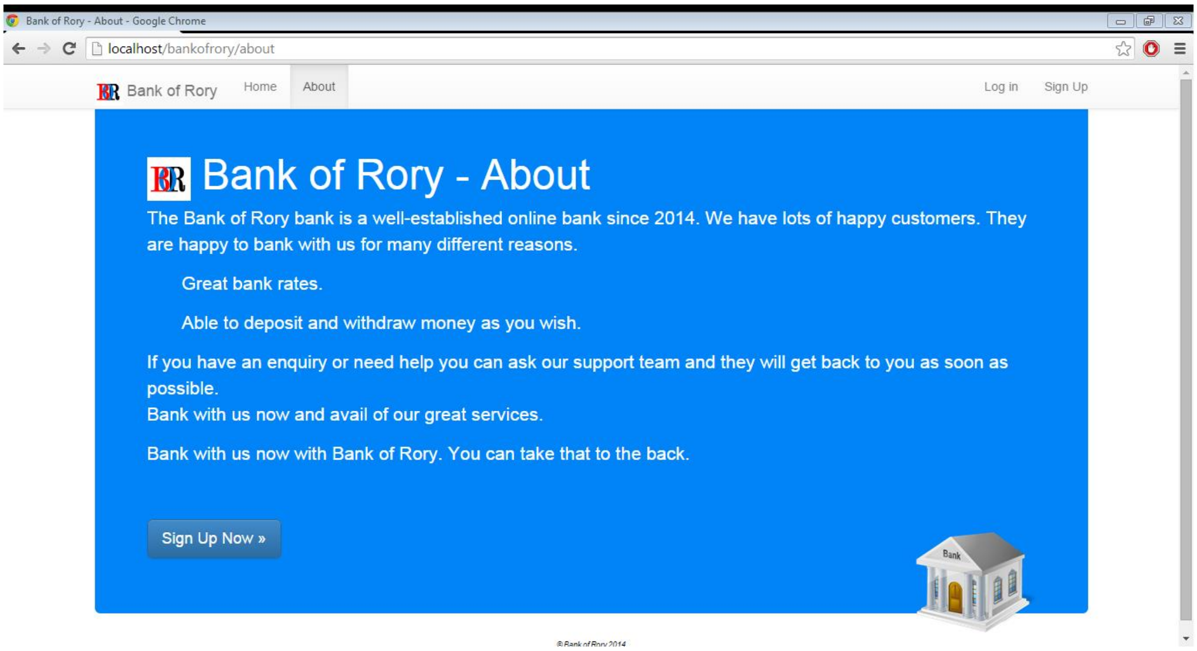


Welcome To The Bank of Rory

The Bank of Rory bank is a well-established online bank since 2014. We have lots of happy customers. They are happy to bank with us for many different reasons. Mainly because we care about or customers.

Bank with us now with Bank of Rory. You can take that to the back.

Fig – 37 – Home Page



Bank of Rory - About - Google Chrome
localhost/bankofrory/about
Bank of Rory
Home
About
Log in
Sign Up

Bank of Rory - About

The Bank of Rory bank is a well-established online bank since 2014. We have lots of happy customers. They are happy to bank with us for many different reasons.

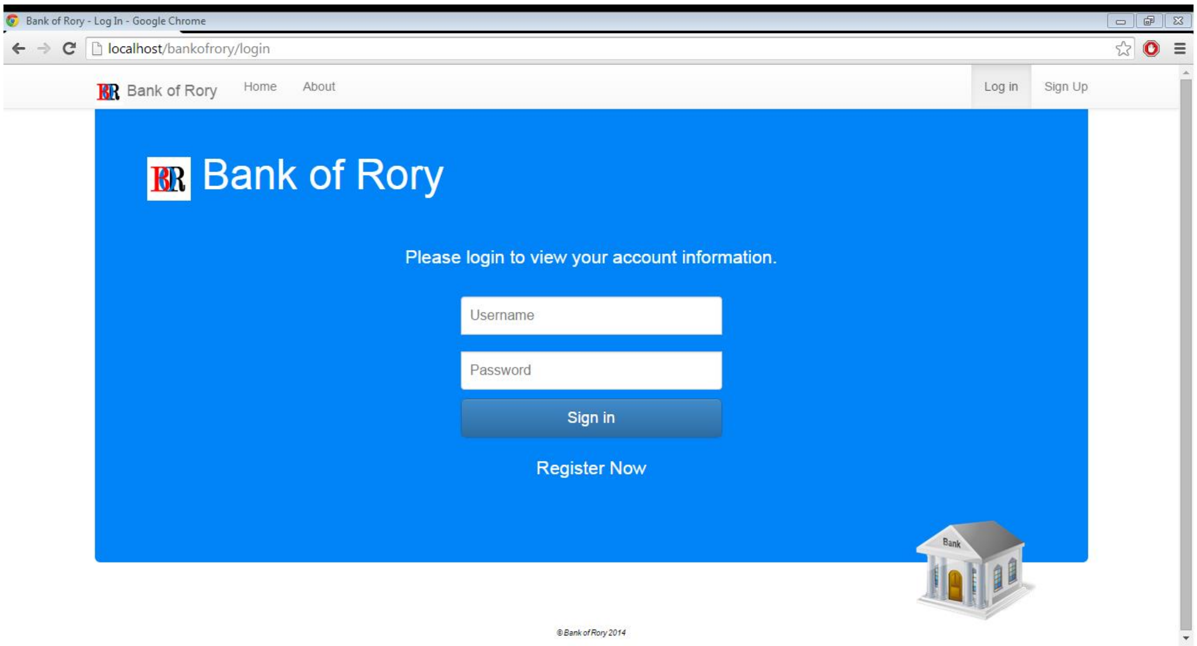
Great bank rates.

Able to deposit and withdraw money as you wish.

If you have an enquiry or need help you can ask our support team and they will get back to you as soon as possible.
Bank with us now and avail of our great services.

Bank with us now with Bank of Rory. You can take that to the back.

Fig – 38 – About Page

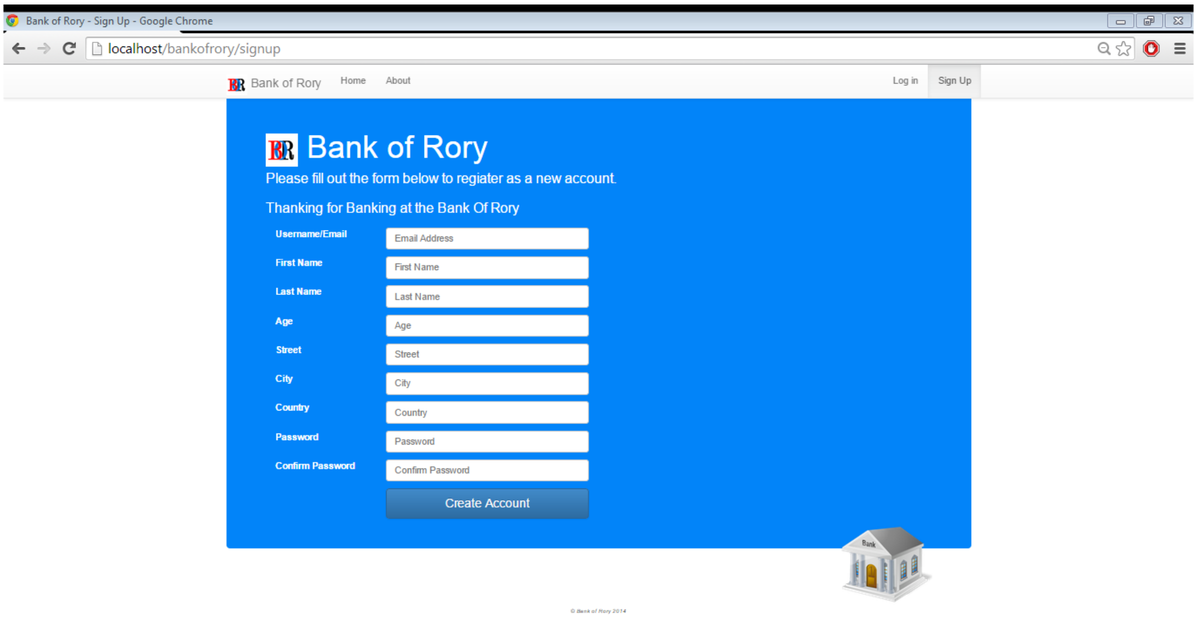


Bank of Rory

Please login to view your account information.

© Bank of Rory 2014

Fig – 39 – Login Page



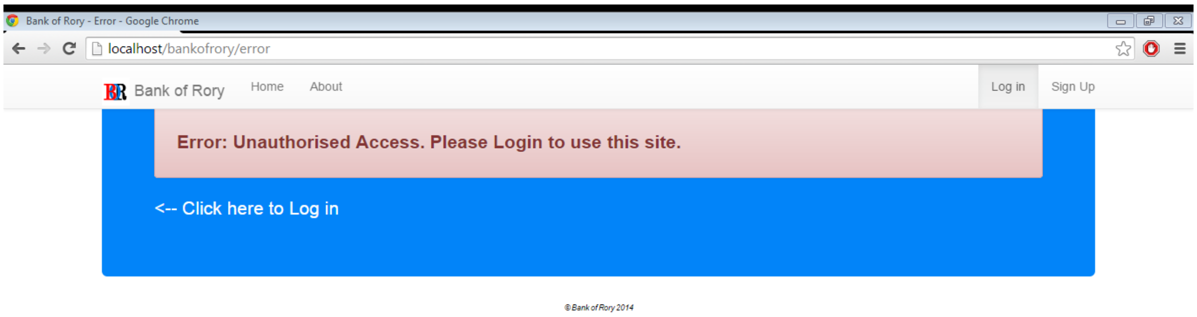
Bank of Rory

Please fill out the form below to regiater as a new account.

Thanking for Banking at the Bank Of Rory

© Bank of Rory 2014

Fig – 40 – Signup Page

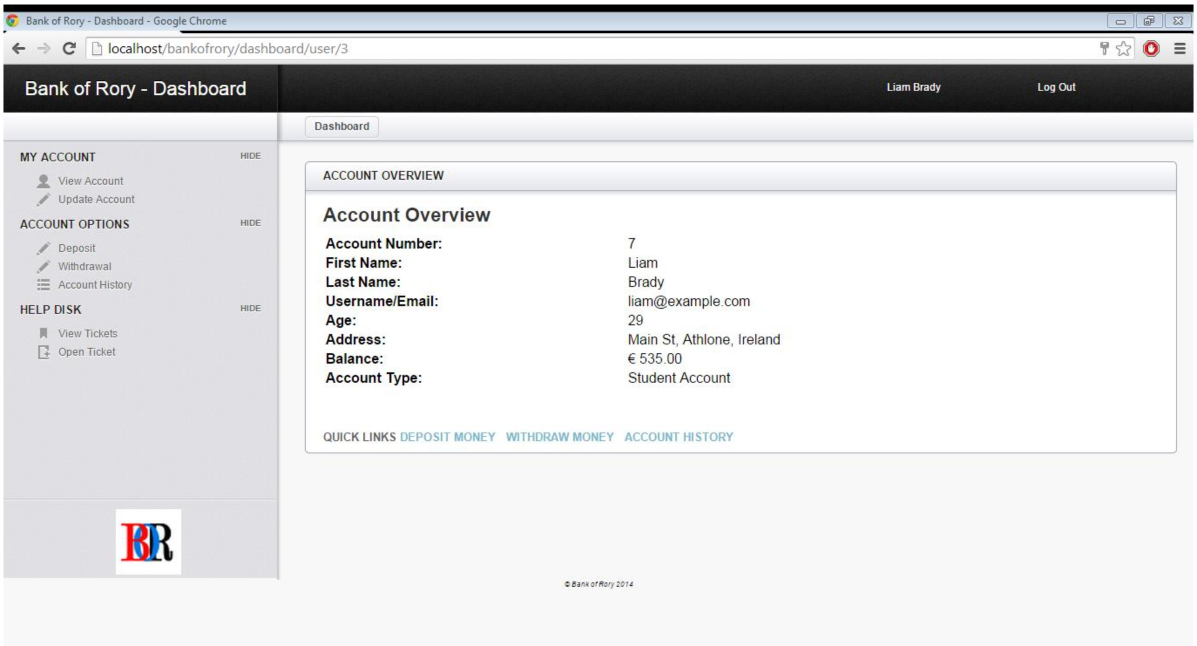

Bank of Rory - Error - Google Chrome
localhost/bankofrory/error
Bank of Rory
Home
About
Log in
Sign Up

Error: Unauthorised Access. Please Login to use this site.

<-- Click here to Log in

© Bank of Rory 2014

Fig – 41 – Error Page



ACCOUNT OVERVIEW

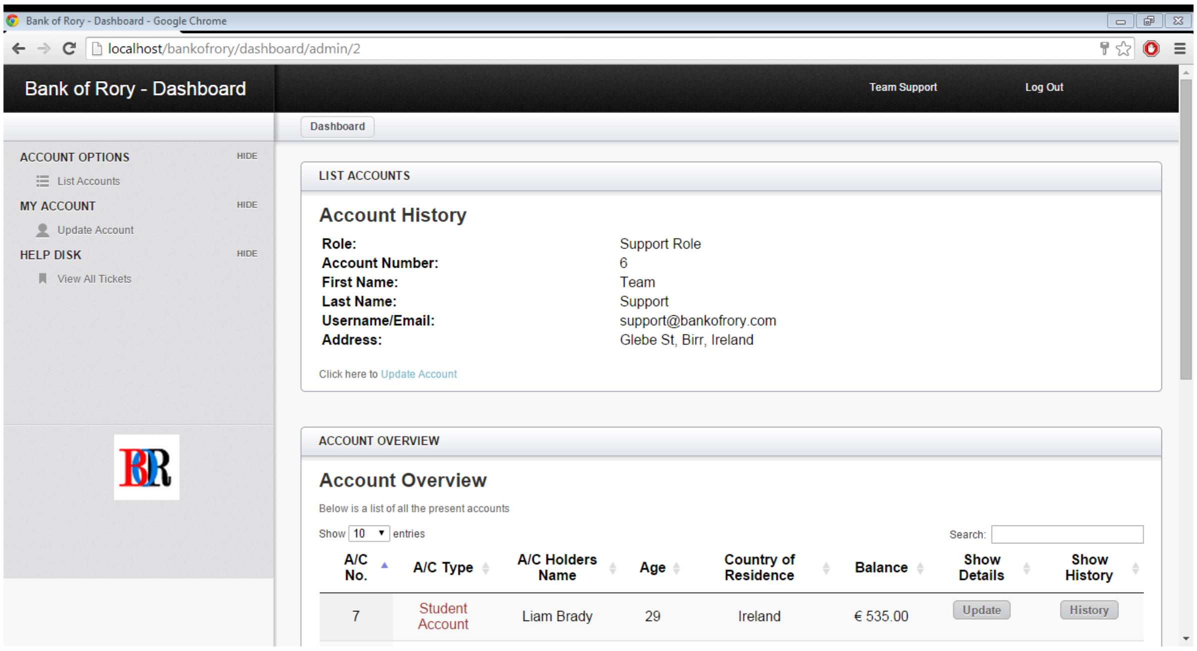
Account Overview

Account Number:	7
First Name:	Liam
Last Name:	Brady
Username/Email:	liam@example.com
Age:	29
Address:	Main St, Athlone, Ireland
Balance:	€ 535.00
Account Type:	Student Account

QUICK LINKS DEPOSIT MONEY WITHDRAW MONEY ACCOUNT HISTORY

© Bank of Rory 2014

Fig – 42 – User Account Landing Page – Note the side bar menu



Account History

Role:	Support Role
Account Number:	6
First Name:	Team
Last Name:	Support
Username/Email:	support@bankofrory.com
Address:	Glebe St, Birr, Ireland

Click here to Update Account

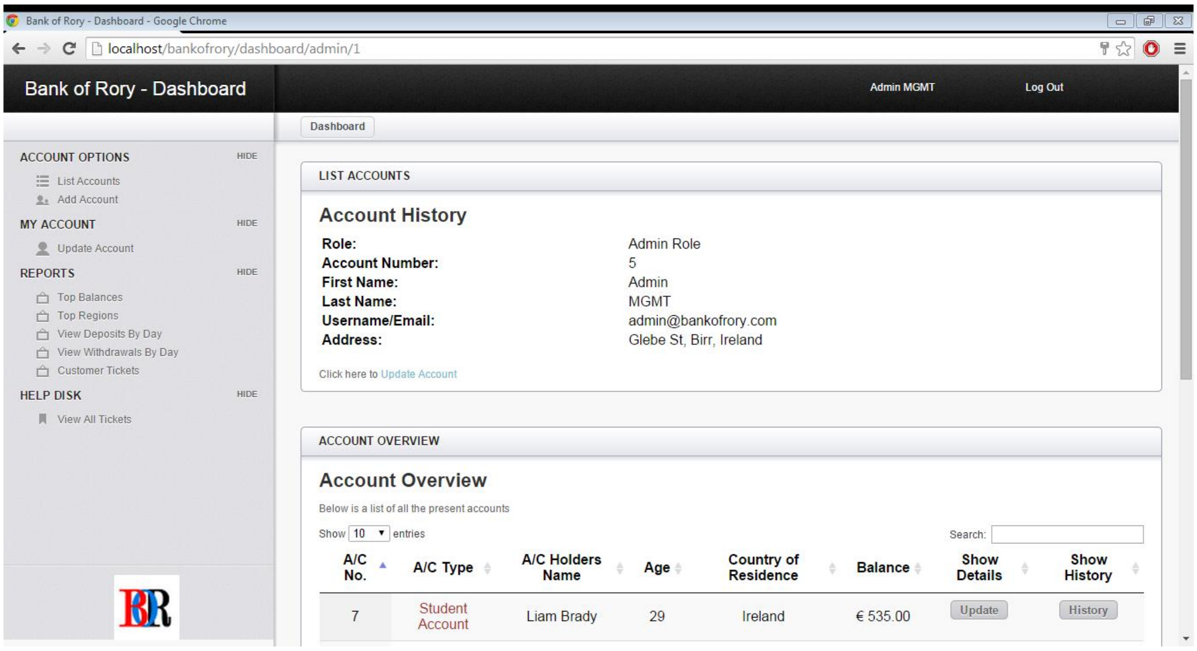
Account Overview

Below is a list of all the present accounts

Show 10 entries Search:

A/C No.	A/C Type	A/C Holders Name	Age	Country of Residence	Balance	Show Details	Show History
7	Student Account	Liam Brady	29	Ireland	€ 535.00	Update	History

Fig – 43 – Support Account Landing Page – Note the different side bar menu



Account History

Role:	Admin Role
Account Number:	5
First Name:	Admin
Last Name:	MGMT
Username/Email:	admin@bankofrory.com
Address:	Glebe St, Birr, Ireland

Click here to Update Account

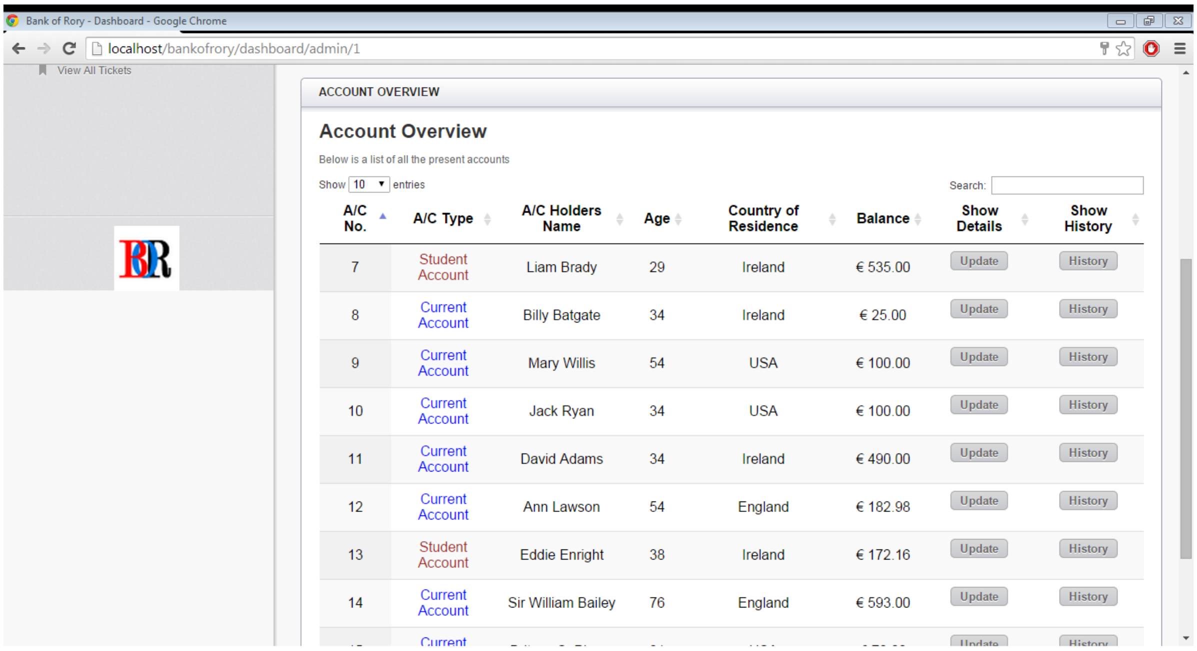
Account Overview

Below is a list of all the present accounts

Show 10 entries Search:

A/C No.	A/C Type	A/C Holders Name	Age	Country of Residence	Balance	Show Details	Show History
7	Student Account	Liam Brady	29	Ireland	€ 535.00	Update	History

Fig – 44 – Admin Account Landing Page – Note the different side bar menu


Bank of Rory - Dashboard - Google Chrome
localhost/bankofrory/dashboard/admin/1
View All Tickets
BR

ACCOUNT OVERVIEW

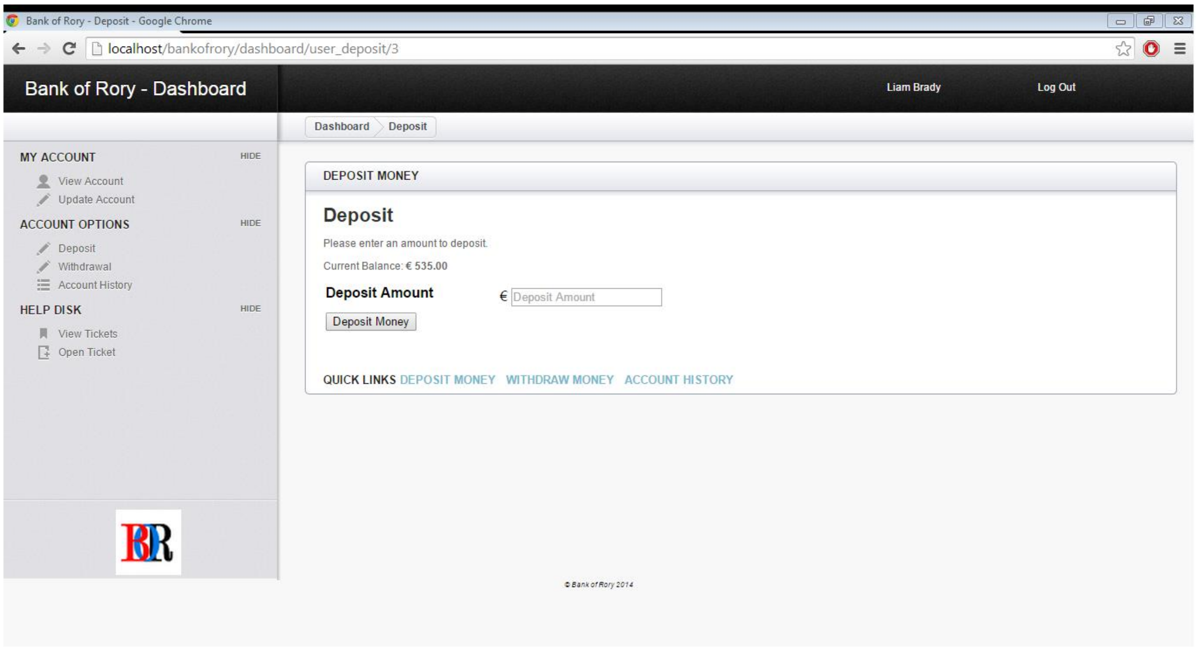
Account Overview

Below is a list of all the present accounts

Show 10 entries   Search:

A/C No.	A/C Type	A/C Holders Name	Age	Country of Residence	Balance	Show Details	Show History
7	Student Account	Liam Brady	29	Ireland	€ 535.00	Update	History
8	Current Account	Billy Batgate	34	Ireland	€ 25.00	Update	History
9	Current Account	Mary Willis	54	USA	€ 100.00	Update	History
10	Current Account	Jack Ryan	34	USA	€ 100.00	Update	History
11	Current Account	David Adams	34	Ireland	€ 490.00	Update	History
12	Current Account	Ann Lawson	54	England	€ 182.98	Update	History
13	Student Account	Eddie Enright	38	Ireland	€ 172.16	Update	History
14	Current Account	Sir William Bailey	76	England	€ 593.00	Update	History
	Current					Update	History

Fig – 45 – Admin Account Landing Page – Bottom of the page. This is the same as the bottom of the support page.



DEPOSIT MONEY

Deposit

Please enter an amount to deposit.

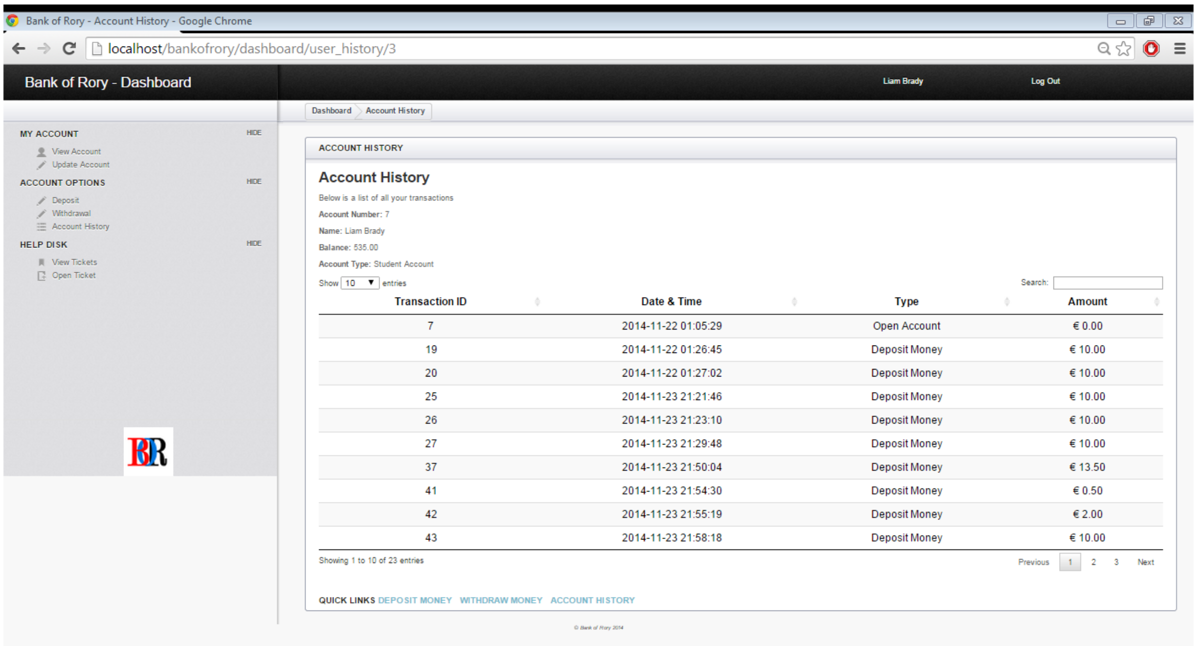
Current Balance: € 535.00

Deposit Amount € Deposit Amount

Deposit Money

QUICK LINKS DEPOSIT MONEY WITHDRAW MONEY ACCOUNT HISTORY

Fig – 46 – Deposit Page. Nearly Identical to the withdrawal page



Account History

Below is a list of all your transactions

Account Number: 7

Name: Liam Brady

Balance: 535.00

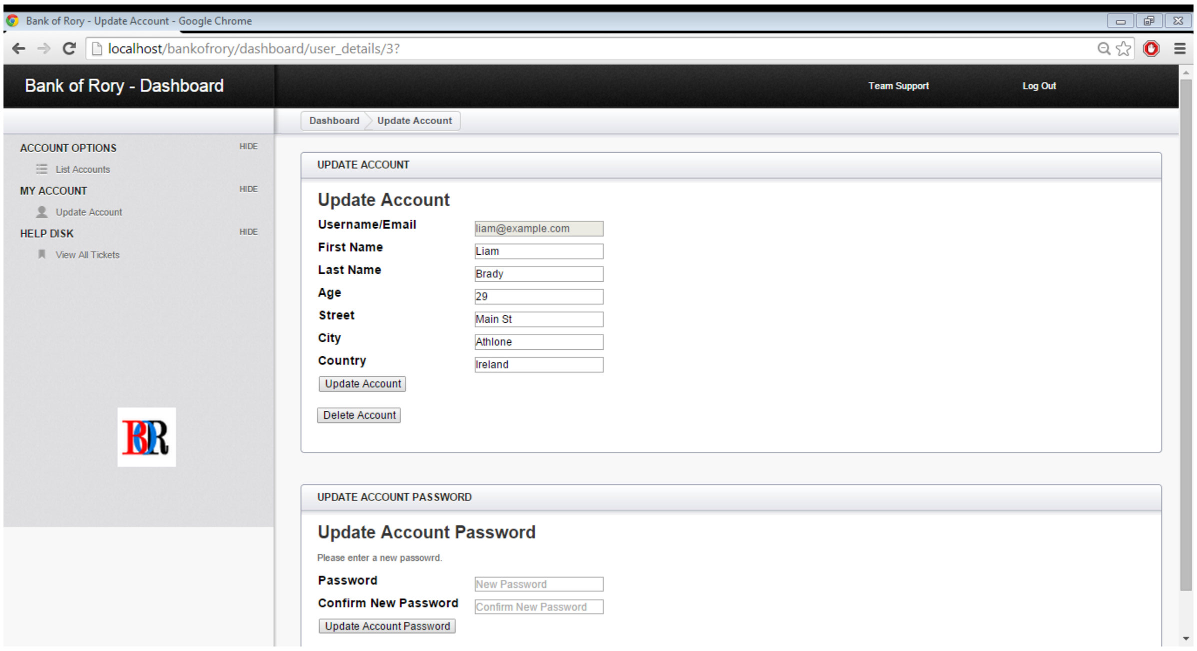
Account Type: Student Account

Show 10 entries

Transaction ID	Date & Time	Type	Amount
7	2014-11-22 01:05:29	Open Account	€ 0.00
19	2014-11-22 01:26:45	Deposit Money	€ 10.00
20	2014-11-22 01:27:02	Deposit Money	€ 10.00
25	2014-11-23 21:21:46	Deposit Money	€ 10.00
26	2014-11-23 21:23:10	Deposit Money	€ 10.00
27	2014-11-23 21:29:48	Deposit Money	€ 10.00
37	2014-11-23 21:50:04	Deposit Money	€ 13.50
41	2014-11-23 21:54:30	Deposit Money	€ 0.50
42	2014-11-23 21:55:19	Deposit Money	€ 2.00
43	2014-11-23 21:58:18	Deposit Money	€ 10.00

Showing 1 to 10 of 23 entries

Fig – 47 – Show History Page



Update Account

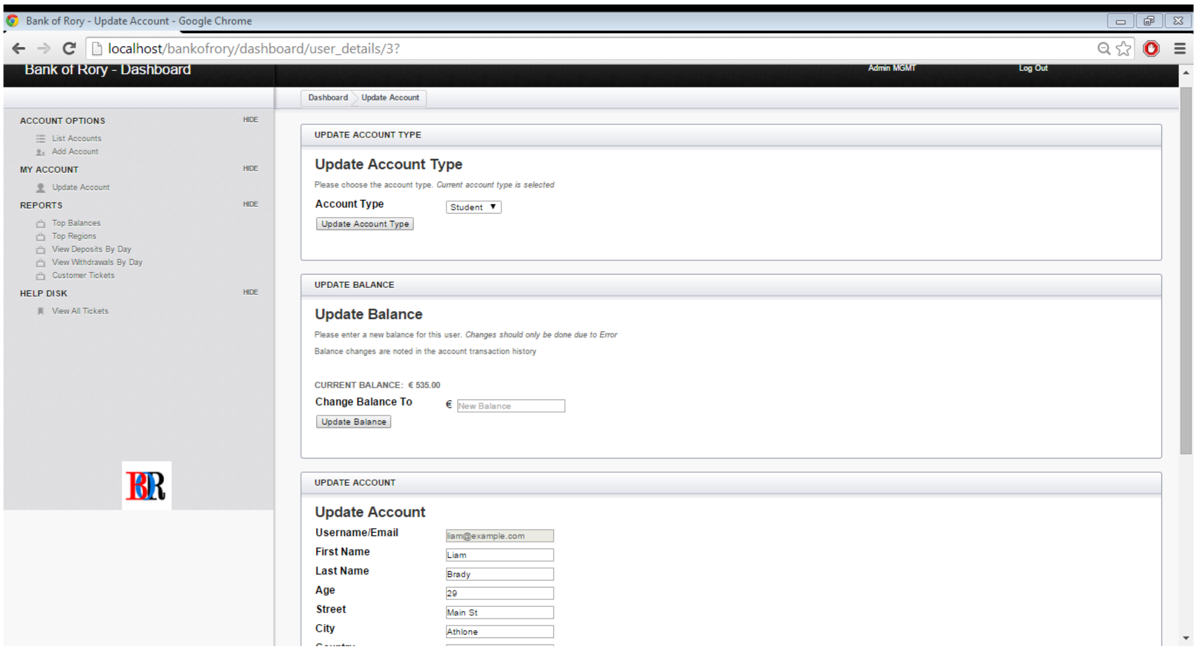
Username/Email	liam@example.com
First Name	Liam
Last Name	Brady
Age	29
Street	Main St
City	Athlone
Country	Ireland

Update Account Password

Please enter a new passowrd.

Password	New Password
Confirm New Password	Confirm New Password

Fig – 47 – Update Liam Brady’s account form with in the support role section.



UPDATE ACCOUNT TYPE

Update Account Type

Please choose the account type. *Current account type is selected*

Account Type: Student ▼

UPDATE BALANCE

Update Balance

Please enter a new balance for this user. *Changes should only be done due to Error*

Balance changes are noted in the account transaction history

CURRENT BALANCE: € 535.00

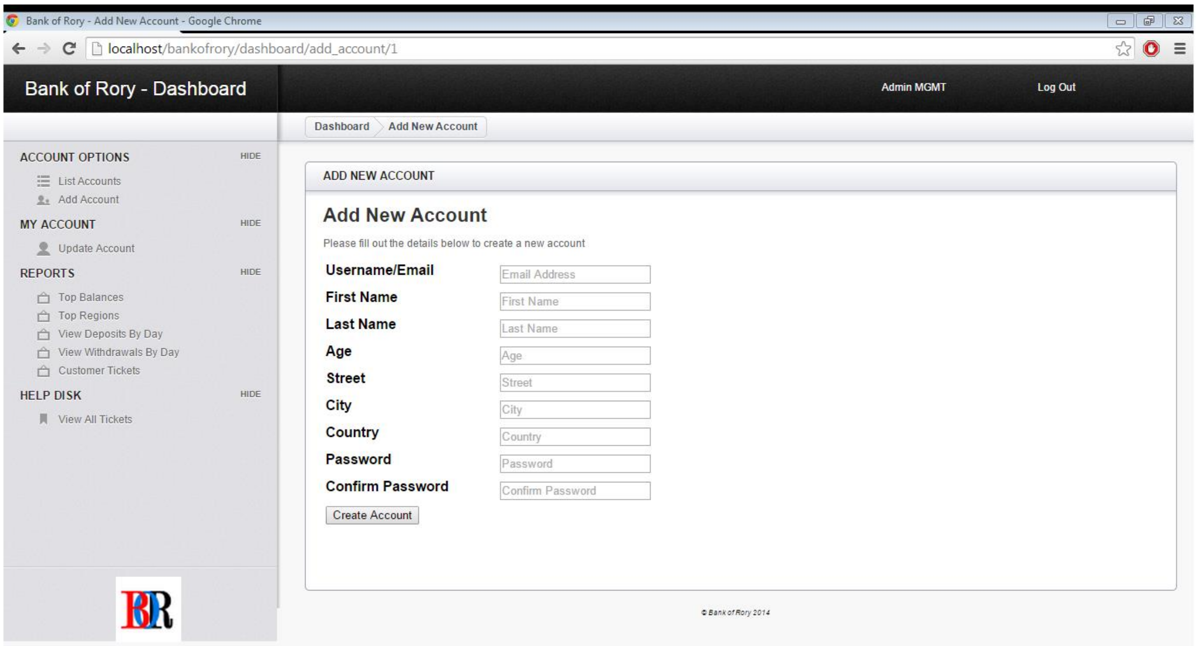
Change Balance To € New Balance

UPDATE ACCOUNT

Update Account

Username/Email	liam@example.com
First Name	Liam
Last Name	Brady
Age	29
Street	Main St
City	Athlone

Fig – 48 – Update Liam Brady's account form with in the admin role section. Here we see two extra sections.



ADD NEW ACCOUNT

Add New Account

Please fill out the details below to create a new account

Username/Email	Email Address
First Name	First Name
Last Name	Last Name
Age	Age
Street	Street
City	City
Country	Country
Password	Password
Confirm Password	Confirm Password

Fig – 49 – Add a new account form the admin section

Screencast

Below is my screen cast for my database assignment. If this video does not play through this link please use the following Link - http://youtu.be/lB45oAA2Gcw

Conclusion

I made a banking system that has uses both MySQL and NoSQL databases. I have incorporated CSS, two Singleton patterns for the database connections classes, used a restful framework for php called Slim and have used extensive validation throughout the site. I have also used a third normal form database consisting of 5 tables and introduced 3 different user roles.

In conclusion, I feel I have achieved all the goals that were set out in the marking rubric, the assignment sheet and my project proposal. I feel that as I am a web student I had to put in a better effort on the CSS and use a php framework. I also feel that as we did have an advantage over the game students because we knew php already, I decided to do the NoSQL part of the project. I used NoSQL to do basic CRUD operations but I feel they were within the right context for my project.

I do apologise for the amount of appendices but I did write a lot of pages and function for this project and they all needed to be include.

I have include the marking rubric in a separate document as requested but I was not too sure how it was to be filled out as we have never done this before. I have include my marking in red.

To run my project I have include instruction in the “Running Bank of Rory” section. I have also include username and passwords to gain access to the site.

Rory Nee

A00190040

Appendix

I have changed the appendix line high to 1.0 so as to save space and to cut down on the page length of the document in case you need to print it out.

Please note the following files are files that I have worked on. There are a number of files that belong to bootstrap, Slim Framework and medialoot admin template that I may have changed slightly but I feel there is no need in adding them in here.

Appendix - Database Dump

```
-- phpMyAdmin SQL Dump
-- version 3.4.5
-- http://www.phpmyadmin.net
--
-- Host: localhost
-- Generation Time: Dec 05, 2014 at 10:37 PM
-- Server version: 5.5.16
-- PHP Version: 5.3.8

SET SQL_MODE="NO_AUTO_VALUE_ON_ZERO";
SET time_zone = "+00:00";

/*!40101 SET @OLD_CHARACTER_SET_CLIENT=@@CHARACTER_SET_CLIENT */;
/*!40101 SET @OLD_CHARACTER_SET_RESULTS=@@CHARACTER_SET_RESULTS */;
/*!40101 SET @OLD_COLLATION_CONNECTION=@@COLLATION_CONNECTION */;
/*!40101 SET NAMES utf8 */;

--
-- Database: `bankofrorybd`
--
CREATE DATABASE `bankofrorybd` DEFAULT CHARACTER SET utf8 COLLATE utf8_general_ci;
USE `bankofrorybd`;

DELIMITER $$
--
-- Procedures
--
CREATE DEFINER=`root`@`localhost` PROCEDURE `ADD_NEW_ACCOUNT`(fname
varchar(100), lname varchar(100),
	email varchar(255),age int(11), street varchar(100),city varchar(100),country
varchar(100),pass varchar(255))
BEGIN
INSERT INTO users VALUES(NULL,fname,lname,email,age,street,city,country,pass,3);
```

```
END$$

CREATE DEFINER=`root`@`localhost` PROCEDURE `CHECK_LOGIN_DETAILS`(username_input
VARCHAR(255),password_input VARCHAR(255)  )
BEGIN
SELECT * FROM users where email = username_input AND password = password_input;
END$$

CREATE DEFINER=`root`@`localhost` PROCEDURE `DELETE_ACCOUNT`(custnum NUMERIC)
BEGIN
DELETE FROM users WHERE account_no = custnum;
END$$

CREATE DEFINER=`root`@`localhost` PROCEDURE `DEPOSIT_MONEY`(acc_id NUMERIC,
amount decimal(13,2))
BEGIN
UPDATE `account` SET balance = balance + amount WHERE id = acc_id;
INSERT INTO transactions (transactions_time, transaction_type, transaction_amount,
account_id)
VALUES (CURRENT_TIMESTAMP,'Deposit Money', amount,acc_id);
END$$

CREATE DEFINER=`root`@`localhost` PROCEDURE `GET_ACCOUNTS`()
BEGIN
SELECT a.id, u.account_no, u.first_name, u.last_name, u.age, u.country,a.balance,
a.account_type_id FROM
users as u join account as a WHERE u.account_no = a.users_account_no AND
u.user_roles_role_id > 2;
END$$

CREATE DEFINER=`root`@`localhost` PROCEDURE `GET_ACCOUNT_INFO`(usernum
NUMERIC)
BEGIN
SELECT
u.account_no,u.first_name,u.last_name,u.email,u.age,u.street,u.city,u.country,a.balance,a.i
d,
a.account_type_id FROM users as u join account as a WHERE
u.account_no = a.users_account_no AND u.account_no = usernum;
END$$

CREATE DEFINER=`root`@`localhost` PROCEDURE `GET_ACCOUNT_TYPES`()
BEGIN
SELECT * FROM account_type;
END$$

CREATE DEFINER=`root`@`localhost` PROCEDURE `GET_CURRENT_BALANCE`(user_id
NUMERIC)
```

```
BEGIN
SELECT balance FROM account as a WHERE a.users_account_no = user_id;
END$$

CREATE DEFINER=`root`@`localhost` PROCEDURE `GET_DEPOSIT_DATE`(search_date
varchar(255))
BEGIN
SELECT a.id, u.first_name, u.last_name,t.transaction_id, t.transactions_time,
t.transaction_type, t.transaction_amount FROM
transactions as t JOIN account as a JOIN users as u where a.users_account_no =
u.account_no
AND a.id = t.account_id AND u.user_roles_role_id > 2
AND STR_TO_DATE( search_date,  '%Y-%m-%d' ) = DATE(t.transactions_time) AND
t.transaction_type = 'Deposit Money';
END$$

CREATE DEFINER=`root`@`localhost` PROCEDURE `GET_DEPOSIT_DAY`()
BEGIN
SELECT  DISTINCT(DATE(t.transactions_time)) as dates FROM transactions as t WHERE
t.transaction_type = 'Deposit Money';
END$$

CREATE DEFINER=`root`@`localhost` PROCEDURE `GET_LAST_ACCOUNT_ID`()
BEGIN
SELECT account_no FROM users ORDER BY account_no DESC LIMIT 1;
END$$

CREATE DEFINER=`root`@`localhost` PROCEDURE `GET_ROLES`()
BEGIN
SELECT * FROM user_roles;
END$$

CREATE DEFINER=`root`@`localhost` PROCEDURE `GET_TICKET_INFO`()
BEGIN
SELECT a.id,u.first_name,u.last_name,u.country,at.type FROM users as u join account as a
join
account_type as at WHERE u.account_no = a.users_account_no AND
a.account_type_id = at.id AND u.user_roles_role_id > 2 group by a.id;
END$$

CREATE DEFINER=`root`@`localhost` PROCEDURE `GET_Top_BALANCES`()
BEGIN
SELECT a.id,u.first_name,u.last_name,u.country,a.balance, at.type, Count(t.account_id) as
no_of_trans FROM users as u join account as a join
account_type as at join transactions as t WHERE u.account_no = a.users_account_no AND
a.account_type_id = at.id AND a.id = t.account_id AND u.user_roles_role_id > 2 group by
a.id order by balance desc;
```

```
END$$

CREATE DEFINER=`root`@`localhost` PROCEDURE `GET_Top_REGIONS`()
BEGIN
SELECT Count(DISTINCT u.account_no) as total_cust,u.country,
Sum(DISTINCT a.balance) as total_bal, Count(t.account_id) as no_of_trans FROM users as u
join account as a join
account_type as at join transactions as t WHERE u.account_no = a.users_account_no AND
a.account_type_id = at.id AND a.id = t.account_id AND u.user_roles_role_id > 2 group by
u.country order by total_bal desc;
END$$

CREATE DEFINER=`root`@`localhost` PROCEDURE `GET_TRANSACTIONS`(user_id NUMERIC)
BEGIN
SELECT t.transaction_id, t.transactions_time, t.transaction_type, t.transaction_amount,
t.account_id FROM
transactions as t JOIN account as a where a.users_account_no = user_id AND a.id =
t.account_id;
END$$

CREATE DEFINER=`root`@`localhost` PROCEDURE `GET_WITHDRAWS_DAY`()
BEGIN
SELECT  DISTINCT(DATE(t.transactions_time)) as dates FROM transactions as t WHERE
t.transaction_type = 'Withdraw Money';
END$$

CREATE DEFINER=`root`@`localhost` PROCEDURE `GET_WITHDRAW_DATE`(search_date
varchar(255))
BEGIN
SELECT a.id, u.first_name, u.last_name,t.transaction_id, t.transactions_time,
t.transaction_type, t.transaction_amount FROM
transactions as t JOIN account as a JOIN users as u where a.users_account_no =
u.account_no
AND a.id = t.account_id AND u.user_roles_role_id > 2
AND STR_TO_DATE( search_date,  '%Y-%m-%d' ) = DATE(t.transactions_time) AND
t.transaction_type = 'Withdraw Money';
END$$

CREATE DEFINER=`root`@`localhost` PROCEDURE `UPDATE_ACCOUNT`(id NUMERIC, fname
varchar(100), lname varchar(100),age int(11), street varchar(100),
city varchar(100),counrty varchar(100))
BEGIN
UPDATE `users` SET first_name = fname , last_name = lname,age = age, street = street,
city = city, country = counrty WHERE account_no = id;
END$$
```

```
CREATE DEFINER=`root`@`localhost` PROCEDURE `UPDATE_ACCOUNT_PASS`(id NUMERIC,
new_pass varchar(255))
BEGIN
UPDATE users SET password = new_pass WHERE account_no = id;
END$$

CREATE DEFINER=`root`@`localhost` PROCEDURE `UPDATE_ACCOUNT_type`(id NUMERIC,
type NUMERIC)
BEGIN
UPDATE `account` SET account_type_id = type WHERE users_account_no = id;
END$$

CREATE DEFINER=`root`@`localhost` PROCEDURE `UPDATE_BALANCE`(acc_id NUMERIC,
amount decimal(13,2))
BEGIN
UPDATE `account` SET balance = amount WHERE id = acc_id;
INSERT INTO transactions (transactions_time, transaction_type, transaction_amount,
account_id)
VALUES (CURRENT_TIMESTAMP,'Changes Balance', amount,acc_id);
END$$

CREATE DEFINER=`root`@`localhost` PROCEDURE `WITHDRAW_MONEY`(acc_id NUMERIC,
amount decimal(13,2))
BEGIN
UPDATE `account` SET balance = balance - amount WHERE id = acc_id;
INSERT INTO transactions (transactions_time, transaction_type, transaction_amount,
account_id)
VALUES (CURRENT_TIMESTAMP,'Withdraw Money', amount,acc_id);
END$$

DELIMITER ;

-- --------------------------------------------------------

--
-- Table structure for table `account`
--

CREATE TABLE IF NOT EXISTS `account` (
  `id` int(11) NOT NULL AUTO_INCREMENT,
  `users_account_no` int(11) NOT NULL,
  `balance` decimal(13,2) NOT NULL DEFAULT '0.00',
  `account_type_id` int(11) NOT NULL,
  PRIMARY KEY (`id`,`account_type_id`),
  UNIQUE KEY `id_UNIQUE` (`id`),
  KEY `fk_acc_trans_users1_idx` (`users_account_no`),
  KEY `fk_account_account_type1_idx` (`account_type_id`)
) ENGINE=InnoDB  DEFAULT CHARSET=utf8 AUTO_INCREMENT=19 ;

--
-- Dumping data for table `account`
--

INSERT INTO `account` (`id`, `users_account_no`, `balance`, `account_type_id`) VALUES
(5, 1, 0.00, 1),
(6, 2, 0.00, 1),
(7, 3, 535.00, 2),
(8, 4, 25.00, 1),
(9, 5, 100.00, 1),
(10, 6, 100.00, 1),
(11, 7, 490.00, 1),
(12, 8, 182.98, 1),
(13, 9, 172.16, 2),
(14, 10, 593.00, 1),
(15, 11, 70.00, 1),
(16, 12, 29.01, 1),
(17, 13, 400.00, 1);

--
-- Triggers `account`
--
DROP TRIGGER IF EXISTS `delete_account`;
DELIMITER //
CREATE TRIGGER `delete_account` BEFORE DELETE ON `account`
 FOR EACH ROW DELETE FROM transactions
    WHERE account_id = old.id
//
DELIMITER ;

-- --------------------------------------------------------

--
-- Table structure for table `account_type`
--

CREATE TABLE IF NOT EXISTS `account_type` (
  `id` int(11) NOT NULL AUTO_INCREMENT,
  `type` varchar(100) NOT NULL,
  PRIMARY KEY (`id`),
  UNIQUE KEY `id_UNIQUE` (`id`),
  UNIQUE KEY `type_UNIQUE` (`type`)
) ENGINE=InnoDB  DEFAULT CHARSET=utf8 AUTO_INCREMENT=3 ;

--
```

```
-- Dumping data for table `account_type`
--

INSERT INTO `account_type` (`id`, `type`) VALUES
(1, 'Current'),
(2, 'Student');

-- --------------------------------------------------------

--
-- Table structure for table `transactions`
--

CREATE TABLE IF NOT EXISTS `transactions` (
  `transaction_id` int(11) NOT NULL AUTO_INCREMENT,
  `transactions_time` timestamp NOT NULL DEFAULT CURRENT_TIMESTAMP,
  `transaction_type` varchar(255) NOT NULL,
  `transaction_amount` decimal(13,2) NOT NULL DEFAULT '0.00',
  `account_id` int(11) NOT NULL,
  PRIMARY KEY (`transaction_id`),
  UNIQUE KEY `tranactions_UNIQUE` (`transaction_id`),
  KEY `fk_transactions_account1_idx` (`account_id`)
) ENGINE=InnoDB  DEFAULT CHARSET=utf8 AUTO_INCREMENT=99 ;

--
-- Dumping data for table `transactions`
--

INSERT INTO `transactions` (`transaction_id`, `transactions_time`, `transaction_type`,
`transaction_amount`, `account_id`) VALUES
(5, '2014-11-22 01:05:29', 'Open Account', 0.00, 5),
(6, '2014-11-22 01:05:29', 'Open Account', 0.00, 6),
(7, '2014-11-22 01:05:29', 'Open Account', 0.00, 7),
(8, '2014-11-22 01:05:29', 'Open Account', 0.00, 8),
(19, '2014-11-22 01:26:45', 'Deposit Money', 10.00, 7),
(20, '2014-11-22 01:27:02', 'Deposit Money', 10.00, 7),
(25, '2014-11-23 21:21:46', 'Deposit Money', 10.00, 7),
(26, '2014-11-23 21:23:10', 'Deposit Money', 10.00, 7),
(27, '2014-11-23 21:29:48', 'Deposit Money', 10.00, 7),
(37, '2014-11-23 21:50:04', 'Deposit Money', 13.50, 7),
(41, '2014-11-23 21:54:30', 'Deposit Money', 0.50, 7),
(42, '2014-11-23 21:55:19', 'Deposit Money', 2.00, 7),
(43, '2014-11-23 21:58:18', 'Deposit Money', 10.00, 7),
(44, '2014-11-23 22:00:43', 'Withdraw Money', 10.00, 7),
(45, '2014-11-23 22:01:47', 'Withdraw Money', 5.50, 7),
(46, '2014-11-23 22:46:47', 'Deposit Money', 10.50, 7),
(47, '2014-11-23 22:47:12', 'Withdraw Money', 6.00, 7),
(48, '2014-11-24 13:27:25', 'Withdraw Money', 5.00, 7),
(49, '2014-11-24 13:29:27', 'Withdraw Money', 5.00, 7),
(50, '2014-11-24 13:30:46', 'Deposit Money', 10.00, 7),
(51, '2014-11-25 13:26:29', 'Withdraw Money', 10.00, 7),
(52, '2014-11-26 15:48:45', 'Deposit Money', 20.00, 7),
(53, '2014-11-26 15:50:21', 'Withdraw Money', 30.00, 7),
(54, '2014-11-26 18:31:57', 'Open Account', 0.00, 9),
(55, '2014-11-26 18:36:34', 'Open Account', 0.00, 10),
(56, '2014-11-26 19:48:47', 'Deposit Money', 100.00, 10),
(57, '2014-11-27 10:09:44', 'Deposit Money', 50.00, 9),
(58, '2014-11-27 16:41:17', 'Deposit Money', 10.50, 8),
(59, '2014-11-27 16:41:43', 'Deposit Money', 2.00, 8),
(60, '2014-11-27 19:34:31', 'Deposit Money', 10.50, 8),
(61, '2014-11-27 19:39:25', 'Withdraw Money', 10.00, 8),
(62, '2014-11-27 19:53:14', 'Withdraw Money', 30.00, 8),
(63, '2014-11-27 19:53:40', 'Deposit Money', 20.00, 8),
(64, '2014-11-27 19:54:01', 'Withdraw Money', 4.00, 8),
(65, '2014-11-27 19:58:41', 'Deposit Money', 5.00, 8),
(66, '2014-11-27 19:59:02', 'Withdraw Money', 4.00, 8),
(67, '2014-11-27 19:59:24', 'Deposit Money', 23.00, 8),
(68, '2014-11-27 21:04:24', 'Withdraw Money', 3.00, 8),
(69, '2014-11-27 21:04:39', 'Deposit Money', 5.00, 8),
(70, '2014-11-28 23:17:19', 'Deposit Money', 10.50, 7),
(71, '2014-11-28 23:17:38', 'Withdraw Money', 0.50, 7),
(72, '2014-12-02 16:08:48', 'Changes Balance', 100.00, 9),
(73, '2014-12-02 21:31:10', 'Open Account', 0.00, 11),
(74, '2014-12-02 21:31:29', 'Deposit Money', 500.00, 11),
(75, '2014-12-02 21:31:44', 'Withdraw Money', 10.00, 11),
(76, '2014-12-02 21:35:25', 'Open Account', 0.00, 12),
(77, '2014-12-02 21:35:52', 'Deposit Money', 65.00, 12),
(78, '2014-12-02 21:36:07', 'Deposit Money', 17.99, 12),
(79, '2014-12-02 21:36:20', 'Deposit Money', 99.99, 12),
(80, '2014-12-02 21:37:55', 'Open Account', 0.00, 13),
(81, '2014-12-02 21:38:10', 'Deposit Money', 33.33, 13),
(82, '2014-12-02 21:38:19', 'Deposit Money', 33.33, 13),
(83, '2014-12-02 21:39:27', 'Deposit Money', 10.50, 13),
(84, '2014-12-02 21:43:11', 'Open Account', 0.00, 14),
(85, '2014-12-02 21:43:28', 'Deposit Money', 700.00, 14),
(86, '2014-12-02 21:44:22', 'Withdraw Money', 100.00, 14),
(87, '2014-12-02 21:44:36', 'Withdraw Money', 7.00, 14),
(88, '2014-12-02 21:49:03', 'Open Account', 0.00, 15),
(89, '2014-12-02 21:49:25', 'Deposit Money', 70.00, 15),
(90, '2014-12-02 21:51:19', 'Open Account', 0.00, 16),
(91, '2014-12-02 21:51:36', 'Deposit Money', 33.00, 16),
(92, '2014-12-02 21:51:44', 'Withdraw Money', 3.99, 16),
(93, '2014-12-02 21:52:08', 'Deposit Money', 400.00, 7),
(94, '2014-12-02 22:50:50', 'Changes Balance', 172.16, 13),
(95, '2014-12-02 22:53:48', 'Open Account', 0.00, 17),
(96, '2014-12-02 22:54:07', 'Deposit Money', 400.00, 17);

-- --------------------------------------------------------

--
-- Table structure for table `user_roles`
--

CREATE TABLE IF NOT EXISTS `user_roles` (
  `role_id` int(11) NOT NULL AUTO_INCREMENT,
  `role` varchar(45) NOT NULL,
  PRIMARY KEY (`role_id`),
  UNIQUE KEY `role_id_UNIQUE` (`role_id`),
  UNIQUE KEY `role_UNIQUE` (`role`)
) ENGINE=InnoDB  DEFAULT CHARSET=utf8 AUTO_INCREMENT=4 ;

--
-- Dumping data for table `user_roles`
--

INSERT INTO `user_roles` (`role_id`, `role`) VALUES
(1, 'admin'),
(2, 'support'),
(3, 'user');

-- --------------------------------------------------------

--
-- Table structure for table `users`
--

CREATE TABLE IF NOT EXISTS `users` (
  `account_no` int(11) NOT NULL AUTO_INCREMENT,
  `first_name` varchar(100) NOT NULL,
  `last_name` varchar(100) NOT NULL,
  `email` varchar(255) NOT NULL,
  `age` int(11) NOT NULL,
  `street` varchar(100) NOT NULL,
  `city` varchar(100) NOT NULL,
  `country` varchar(100) NOT NULL,
  `password` varchar(255) NOT NULL,
  `user_roles_role_id` int(11) NOT NULL,
  PRIMARY KEY (`account_no`,`user_roles_role_id`),
  UNIQUE KEY `account_no_UNIQUE` (`account_no`),
  UNIQUE KEY `email_UNIQUE` (`email`),
  KEY `fk_users_user_roles1_idx` (`user_roles_role_id`)
) ENGINE=InnoDB  DEFAULT CHARSET=utf8 AUTO_INCREMENT=15 ;

--
-- Dumping data for table `users`
--

INSERT INTO `users` (`account_no`, `first_name`, `last_name`, `email`, `age`, `street`, `city`,
`country`, `password`, `user_roles_role_id`) VALUES
(1, 'Admin', 'MGMT', 'admin@bankofrory.com', 38, 'Glebe St', 'Birr', 'Ireland',
'c93ccd78b2076528346216b3b2f701e6', 1),
(2, 'Team', 'Support', 'support@bankofrory.com', 50, 'Glebe St', 'Birr', 'Ireland',
'6df134d687f503fd656074dd969a677a', 2),
(3, 'Liam', 'Brady', 'liam@example.com', 29, 'Main St', 'Athlone', 'Ireland',
'fcea920f7412b5da7be0cf42b8c93759', 3),
(4, 'Billy', 'Batgate', 'billy@ait.ie', 34, 'Main St', 'Athlone', 'Ireland',
'fcea920f7412b5da7be0cf42b8c93759', 3),
(5, 'Mary', 'Willis', 'mary@example.com', 54, '1050 Broadway', 'New York', 'USA',
'fcea920f7412b5da7be0cf42b8c93759', 3),
(6, 'Jack', 'Ryan', 'jack@example.com', 34, '1984 Broadway', 'New York', 'USA',
'fcea920f7412b5da7be0cf42b8c93759', 3),
(7, 'David', 'Adams', 'david@gmail.com', 34, 'Glebe St', 'Birr', 'Ireland',
'fcea920f7412b5da7be0cf42b8c93759', 3),
(8, 'Ann', 'Lawson', 'Ann@avon.com', 54, 'Main St', 'London', 'England',
'fcea920f7412b5da7be0cf42b8c93759', 3),
(9, 'Eddie', 'Enright', 'eddie@birr.net', 38, '1 Emmet St', 'Birr', 'Ireland',
'fcea920f7412b5da7be0cf42b8c93759', 3),
(10, 'Sir William', 'Bailey', 'will@yourbank.com', 76, '10 Downing Street', 'London', 'England',
'fcea920f7412b5da7be0cf42b8c93759', 3),
(11, 'Britney S.', 'Pierce', 'britney@et.com', 21, '2 Central Park West', 'New York', 'USA',
'fcea920f7412b5da7be0cf42b8c93759', 3),
(12, 'James', 'Morrison', 'James@example.com', 33, 'Love Street', 'Athlone', 'Ireland',
'fcea920f7412b5da7be0cf42b8c93759', 3),
(13, 'Jan', 'Var Plank', 'jan@example.com', 56, '21 Dutch Rd', 'Amsterdam', 'Holland',
'fcea920f7412b5da7be0cf42b8c93759', 3);

--
-- Triggers `users`
--
DROP TRIGGER IF EXISTS `starting_off_acc`;
DELIMITER //
CREATE TRIGGER `starting_off_acc` AFTER INSERT ON `users`
 FOR EACH ROW BEGIN
 INSERT INTO account VALUES(NULL,new.account_no,0.00,1);
 SET @last_id_in_account = LAST_INSERT_ID();
INSERT INTO transactions VALUES(NULL,CURRENT_TIMESTAMP,'Open
Account',0.00,@last_id_in_account);
```

```
END
//
DELIMITER ;
DROP TRIGGER IF EXISTS `delete_user`;
DELIMITER //
CREATE TRIGGER `delete_user` BEFORE DELETE ON `users`
 FOR EACH ROW DELETE FROM account
    WHERE users_account_no = old.account_no
//
DELIMITER ;

--
-- Constraints for dumped tables
--

--
-- Constraints for table `account`
--
ALTER TABLE `account`
  ADD CONSTRAINT `fk_account_account_type1` FOREIGN KEY (`account_type_id`)
REFERENCES `account_type` (`id`) ON DELETE NO ACTION ON UPDATE NO ACTION,
  ADD CONSTRAINT `fk_acc_trans_users1` FOREIGN KEY (`users_account_no`) REFERENCES
`users` (`account_no`) ON DELETE NO ACTION ON UPDATE NO ACTION;

--
-- Constraints for table `transactions`
--
ALTER TABLE `transactions`
  ADD CONSTRAINT `fk_transactions_account1` FOREIGN KEY (`account_id`) REFERENCES
`account` (`id`) ON DELETE NO ACTION ON UPDATE NO ACTION;

--
-- Constraints for table `users`
--
ALTER TABLE `users`
  ADD CONSTRAINT `fk_users_user_roles1` FOREIGN KEY (`user_roles_role_id`) REFERENCES
`user_roles` (`role_id`) ON DELETE NO ACTION ON UPDATE NO ACTION;

/*!40101 SET CHARACTER_SET_CLIENT=@OLD_CHARACTER_SET_CLIENT */;
/*!40101 SET CHARACTER_SET_RESULTS=@OLD_CHARACTER_SET_RESULTS */;
/*!40101 SET COLLATION_CONNECTION=@OLD_COLLATION_CONNECTION */;
```

Appendix – Mongodb Dump

JSon output of the data.

{ "_id" : { "$oid" : "547e31f551be259c5c000001" }, "account_num" : "13", "area" : "Deposit", "message" : "Hi, I think I may have put in the wrong amount of money. I meant to put in €105.50 and I put in €10.50. Can you look into this for me. Thanks Mundy", "name" : "Eddie Enright", "priority" : "High", "response" : "Ok. we've changes the balance and credited you account with the diffrence of €95.00. Thanking You. Support Team", "status" : "Closed", "ts" : { "$date" : 1417556469000 } }

{ "_id" : { "$oid" : "547e332951be25b45c000000" }, "account_num" : "14", "area" : "Profile", "message" : "Dear Sir, My account is in Euro. Could I change my account to an account in pounds sterling. Kindest Regards. Sir William Bailey", "name" : "Sir William Bailey", "priority" : "High", "response" : "Sorry Mr Bailey. This bank is an Irish bank under Irish law and can only offer services in Euro's. Sorry about that. Support Staff Member Mr Nee.", "status" : "Closed", "ts" : { "$date" : 1417556777000 } }

{ "_id" : { "$oid" : "547e34c051be25b45c000001" }, "ts" : { "$date" : 1417557184000 }, "account_num" : "7", "name" : "Liam Brady", "message" : "Hi, Could i change my account to a current account. Thank You. Liam Brady", "area" : "Profile", "priority" : "Low", "status" : "Open" }

{ "_id" : { "$oid" : "547e434751be25ac5c000000" }, "account_num" : "17", "area" : "Profile", "message" : "Hi, Could i have my account changed to a student account. Thank you, Jan Var Plank", "name" : "Jan Var Plank", "priority" : "Low", "status" : "Review", "ts" : { "$date" : 1417560903000 } }

{ "_id" : { "$oid" : "547f2c3251be25c815000000" }, "ts" : { "$date" : 1417620530000 }, "account_num" : "14", "name" : "Sir William Bailey", "message" : "Can you please check my account and make sure my deposits are adding up. Thanking You Sir William Bailey", "area" : "Deposit", "priority" : "High", "status" : "Open" }

{ "_id" : { "$oid" : "5482137f51be25dc10000002" }, "ts" : { "$date" : 1417810815000 }, "account_num" : "7", "name" : "Liam Brady", "message" : "Just a test to make sure that i can see the message because it is long.", "area" : "Deposit", "priority" : "High", "status" : "Open" }

Appendix – Index.php File

```
<?php

require 'api/Slim/Slim.php';

require_once 'api/database.php';

require_once 'api/database_mongo.php';

require 'api/static_fn.php';

require 'api/access.php';
require 'api/functions.php';
// Silm Framework initiation
use Slim\Slim;
\Slim\Slim::registerAutoloader();
$app = new Slim();

// Routes for the front end pages
$app->get( '/','getMain');
$app->get( '/index','getMain');
$app->get( '/about','getabout');
$app->get( '/signup','getsignup');
$app->post('/signup','createAccount'); // Route to accept the signup form
$app->get( '/login','getlogin');
$app->post('/login','validateLogin'); // Route to accept the login form
$app->get('/error','error'); // Show Errors
$app->get('/logout','logout'); // Logout

// Backend
// User section routes
// user Dashboard
$app->get('/dashboard/user/:id','showAccount'); // Show the account information
$app->get('/dashboard/user_details/:id','showDetails'); // Show user Details
$app->put('/dashboard/update/:id','updateDetails'); // Update user Details
$app->put('/dashboard/account_type/:id','updateAccountType'); // Update user Details
$app->put('/dashboard/account_pass/:id','updateAccountPass'); // Update user Details
$app->delete('/dashboard/update/:id','deleteDetails'); // Delete user Details
$app->get('/dashboard/user_deposit/:id','deposit'); // Show the Deposit Page
$app->put('/dashboard/deposit/:id','updateDeposit'); // Route to accept the Deposit form
$app->get('/dashboard/user_withdrawal/:id','withdrawal'); // Show the Withdrawal Page
```

```
$app->put('/dashboard/withdrawal/:id','updateWithdrawal'); // Route to accept the Withdrawal form
$app->get('/dashboard/user_history/:id','history'); // Show the History page

// Admin section routes
$app->get('/dashboard/admin/:id','listAccounts'); // Show the account information
$app->get('/dashboard/add_account/:id','addAccount'); // Show the add account page
$app->post('/dashboard/update_balance/:id','updateBalance'); // Update balance
$app->post('/dashboard/add_account/:id','createAccountInAdmin'); // create a new user form the admin section
$app->get('/dashboard/top_balances/:id','topBalances'); // Show Report 1 - Top Balances
$app->get('/dashboard/top_region/:id','topRegions'); // Show report 2 - Top Regions
$app->get('/dashboard/deposits_by_day/:id','depositsByDay'); // Show the dates used to search for to be used in report 3 - View Deposits By Day
$app->post('/dashboard/deposits_by_day/:id','displayDeposits'); // Display report 3 - View Deposits By Day
$app->get('/dashboard/withdraw_by_day/:id','withdrawsByDay'); // Show the dates used to search for to be used in report 4 - View Withdrawals By Day
$app->post('/dashboard/withdraw_by_day/:id','displayWithdrawals'); // Display report 4 - View Withdrawals By Day
$app->get('/dashboard/customer_tickets/:id','customerTickets'); // Show report 2 - Top Regions

// Ticket NoSQL
$app->get('/dashboard/open_ticket/:id','openTicket'); // Show the open ticket page to the user
$app->post('/dashboard/open_ticket/:id','postTicket'); // Save the new ticket form data to the NoSQL database
$app->get('/dashboard/view_ticket/:id','viewUserTickets'); // Show the Tickets by user

// Support Ticket NoSQL
$app->get('/dashboard/view_all_tickets/:id','viewAllTickets'); // Show all tickets
```

```
$app->post('/dashboard/ticket_reply/:id','replyTicket'); // Show all tickets

$app->post('/dashboard/change_status/:id','changeStatus'); // Show all tickets

$app->post('/dashboard/post_reply/:id','postReply'); // Show all tickets

$app->post('/dashboard/post_delete/:id','postDelete'); // Show all tickets


$app->run();
```

Appendix – functions.php

```
<?php

/* Some code is repeated throughout this file.

        Comments will only be on the first instance of it.*/


// Start the session

session_start();


// Gets the account information

function getAccount($value){


        $db = dbConn::getConnection(); // Gets an connection object

        // calls the Get Account info procedure

        $querys = "CALL GET_ACCOUNT_INFO($value)";

        // runs the query

        $result = $db->query($querys);

        // fetches the result form the query

        $user_details = $result->fetch();

        // returns the result

        return $user_details;

}
```

```
// Show the Main Dashboard Page
function showAccount($value){
        $db = dbConn::getConnection(); // Gets an connection object
        $app = Slim\Slim::getInstance(); // Gets an instance of the Slim Framework


        // calls the get account function
        $user_details = getAccount($value);
        // Renders the user account page and passes the array  of user to be accessed on the
page
        $app->render('../api/resources/user_account.php', array('user' => $user_details ));
}
// Show the user Update Page
function showDetails($value){
        $db = dbConn::getConnection();
        $app = Slim\Slim::getInstance();
        $user_details = getAccount($value);
        // Call the GET_ACCOUNT_TYPES procedure
        $myquery = "CALL GET_ACCOUNT_TYPES()";
        $result = $db->query($myquery);
        $account_types = $result->fetchALL(PDO::FETCH_ASSOC); // return an associative
array
        $app->render('../api/resources/user_details.php', array('user' => $user_details,
'account_types'=>$account_types ));


}
// Update the account details
function updateDetails($value){
        $db = dbConn::getConnection();
        $app = Slim\Slim::getInstance();
        // Get the request object form the slim framework
```

```
    $request = $app->request();
    // Take in the details form the user taking out any html
    $email = trim($request->post('inputEmail3'));
    $fname = htmlspecialchars(trim($request->post('input_fname')));
    $lname = htmlspecialchars(trim($request->post('input_lname')));
    $age = htmlspecialchars(trim($request->post('input_age')));
    $street = htmlspecialchars(trim($request->post('input_street')));
    $city = htmlspecialchars(trim($request->post('input_city')));
    $country = htmlspecialchars(trim($request->post('input_country')));
    // Age options
    $options_age = array(
 'options' => array(
       'min_range' => 18,
       'max_range' => 120,
       )
    );

        // is the name length greater than zero
        if(strlen($fname) > 0 && strlen($lname) > 0){
            // is the age an int and is it between the range of my age options
            if(filter_var($age, FILTER_VALIDATE_INT, $options_age) !== FALSE){
                        // is the street, city and country length greater
than zero
                        if(strlen($street) > 0 && strlen($city) > 0 &&
strlen($country) > 0){
                            $db->beginTransaction(); // start the
transaction

                                $query = "CALL
UPDATE_ACCOUNT($value, '$fname', '$lname', $age, '$street', '$city','$country')";
```

```
$execute_call = $db->query($query);
$count = $execute_call->rowCount(); // how many rows changed


if($count == 1){


        $db->commit(); // commit the changes
        // reidrect to a diffrent page depending the the role
        if($_SESSION['role'] == 1){


                $app->redirect('../../dashboard/admin/'.$_SESSION['user_id']);
        }else{
                $app->redirect('../../dashboard/user/'.$value);
        }




}else{
        $user_details = getAccount($value);
        $myquery = "CALL GET_ACCOUNT_TYPES()";
        $account_types = $db->query($myquery);
        // Error messages and the page being called again
        $error =  array("error" =>"Database Error. Please Try Again Later.");
```

```
                                                                    $app-
>render('../api/resources/user_details.php', array('myerror_up' => $error,

                              'user' => $user_details, 'account_types'=>$account_types ));
                                                             }



                                             }else{
                                                     $user_details = getAccount($value);
                                                     $myquery = "CALL
GET_ACCOUNT_TYPES()";
                                                     $account_types = $db-
>query($myquery);

                                                     $error =  array("error" =>"A full address
must be provided. Please enter a valid value.");
                                                     $app-
>render('../api/resources/user_details.php', array('myerror_up' => $error,

                                     'user' => $user_details,
'account_types'=>$account_types ));
                                             }



                       }else{
                              $user_details = getAccount($value);
                              $myquery = "CALL GET_ACCOUNT_TYPES()";
                              $result = $db->query($myquery);
                              $account_types = $result->fetchALL(PDO::FETCH_ASSOC);

                              $error =  array("error" =>"Age is invalid. You must be over 18
to open an account. Please enter a valid value.");
```

```
                        $app->render('../api/resources/user_details.php',
array('myerror_up' => $error,

                        'user' => $user_details,'account_types'=>$account_types ));
                  }



            }else{
                  $user_details = getAccount($value);
                  $myquery = "CALL GET_ACCOUNT_TYPES()";
                  $account_types = $db->query($myquery);



                  $error =  array("error" =>"First or Last the name is blank. Please enter
a valid value.");
                  $app->render('../api/resources/user_details.php', array('myerror_up'
=> $error,

            'user' => $user_details, 'account_types'=>$account_types ));
            }



}
// Update the user account type
function updateAccountType($value){
            $db = dbConn::getConnection();
            $app = Slim\Slim::getInstance();
            $request = $app->request();
            $account_type = htmlspecialchars(trim($request->put('input_account')));
            // is account type an int
            if(filter_var($account_type, FILTER_VALIDATE_INT) !== FALSE){
                    $db->beginTransaction();
                    $query = "CALL UPDATE_ACCOUNT_type($value,$account_type)";


                    $execute_call = $db->query($query);
                    $count = $execute_call->rowCount();

                    if($count == 1){
                        $db->commit();
                        $app->redirect('../../dashboard/admin/'.$_SESSION['user_id']);
                    }else{
                        $app->redirect('../../error');
                    }

                }else{
                    $app->redirect('../../error');
                }

}

// Update the user Passwords
function  updateAccountPass($value){
        $db = dbConn::getConnection();
        $app = Slim\Slim::getInstance();
        $request = $app->request();

        $username = htmlspecialchars(trim($request->post('inputEmail3')));
        $pass = trim($request->post('input_pass'));
        $pass_check = trim($request->post('input_cpass'));
```

```
            // is the password greater than or equal to 6
            if(strlen($pass) >= 6 && strlen($pass_check) >= 6 ){

                if($pass == $pass_check){
                    $db->beginTransaction();
                        // encrypt the password
                        $encript_Pass = md5( $pass );
                        $pass_query = "Call
UPDATE_ACCOUNT_PASS(".$value.",'".$encript_Pass."')";

                        $execute_call = $db->query($pass_query);
                        $count = $execute_call->rowCount();

                        if($count == 1){

                            $db->commit();

                            if($_SESSION['role'] == 1){

                                $app-
>redirect('../../dashboard/admin/'.$_SESSION['user_id']);
                            }else{
                                $app-
>redirect('../../dashboard/user/'.$value);
                            }

                        }else{
                            $user_details = getAccount($value);
                            $myquery = "CALL
GET_ACCOUNT_TYPES()";
```

```
                                                        $account_types = $db-
>query($myquery);

                                                        $error =  array("error" =>"No Change
made to the database. Please Try Again Later.");
                                                        $app-
>render('../api/resources/user_details.php', array('myerror_pas' => $error,

                                        'user' => $user_details,
'account_types'=>$account_types ));
                                                }

                                }else{

                                        $myquery = "CALL GET_ACCOUNT_TYPES()";
                                        $account_types = $db->query($myquery);
                                        $user_details = getAccount($value);
                                        $error =  array("error" =>"New Passwords must be the
same. Please enter a valid value.");
                                        $app->render('../api/resources/user_details.php',
array('myerror_pas' => $error,

                'user' => $user_details, 'account_types'=>$account_types ));
                                }



                        }else{

                                $myquery = "CALL GET_ACCOUNT_TYPES()";
                                $account_types = $db->query($myquery);
                                $user_details = getAccount($value);
```

```
                                        $error =  array("error" =>"New Passwords must be 6 or more
characters. Please enter a valid value.");
                                        $app->render('../api/resources/user_details.php',
array('myerror_pas' => $error,

                              'user' => $user_details, 'account_types'=>$account_types ));
                              }


}



//Delete a User
function deleteDetails($id){
          $app = Slim\Slim::getInstance();
          $db = dbConn::getConnection();
          $request = $app->request();
          $acc_no = $request->post('account_no');

          // Dont delete the admin account
          if($_SESSION['role'] == 1 && $_SESSION['user_id'] == 1 && $id == 1){
                    $user_details = getAccount($id);
                    $myquery = "CALL GET_ACCOUNT_TYPES()";
                    $account_types = $db->query($myquery);

                    $error =  array("error" =>"Admin Super User Cannot Be Deleted.");
                    $app->render('../api/resources/user_details.php', array('user' =>
$user_details,'myerror' => $error,'account_types'=>$account_types ));

          // Dont delete the support account
          }else if($_SESSION['role'] == 2 && $_SESSION['user_id'] == 2 && $id == 2){
```

```
                    $user_details = getAccount($id);
                    $myquery = "CALL GET_ACCOUNT_TYPES()";
                    $account_types = $db->query($myquery);

                    $error =  array("error" =>"Support Team Account Cannot Be Deleted.");
                    $app->render('../api/resources/user_details.php', array('user' =>
$user_details,'myerror' => $error,'account_types'=>$account_types ));

          }else{ // delete all other accounts

                     try{

                              $db->beginTransaction();
                              $query = "CALL DELETE_ACCOUNT('".$id."')";
                              $db->exec($query);
                              // Get the mongo connection object
                              $db_mongo_coll = mongoConn::getConnection();
                              // remove the tickets belonging to the account
                              $db_mongo_coll->remove(array('account_num' => $acc_no));

                              $db->commit();
                              // when deleted go to the logout page, clear the session and close the
db connection
                              $app->redirect('../../logout');

                    }  catch (PDOException $e){

                                        $user_details = getAccount($id);
                                        $myquery = "CALL GET_ACCOUNT_TYPES()";
                                        $account_types = $db->query($myquery);
                                        $error =  array("error" =>"Database Error. Please Try Again
Later.");
                                        $app->render('../api/resources/user_details.php', array('user'
=> $user_details,'myerror' => $error,'account_types'=>$account_types ));


                    }
          }
}


//Create a New User from the sign up page
// Similar to the update account comments
function createAccount(){
          $app = Slim\Slim::getInstance();
          $db = dbConn::getConnection();
          $request = $app->request();
          $email = trim($request->post('inputEmail3'));
          $fname = htmlspecialchars(trim($request->post('input_fname')));
          $lname = htmlspecialchars(trim($request->post('input_lname')));
          $age = htmlspecialchars(trim($request->post('input_age')));
          $street = htmlspecialchars(trim($request->post('input_street')));
          $city = htmlspecialchars(trim($request->post('input_city')));
          $country = htmlspecialchars(trim($request->post('input_country')));


          $pass = trim($request->post('input_pass'));
          $pass_check = trim($request->post('input_cpass'));


          $options_age = array(
   'options' => array(
                 'min_range' => 18,
        'max_range' => 120,
        )
    );
    // is the username an email address
    if(filter_var($email, FILTER_VALIDATE_EMAIL)){

        if(strlen($fname) > 0 && strlen($lname) > 0){

            if(filter_var($age, FILTER_VALIDATE_INT, $options_age) !== FALSE){

                if(strlen($pass) >= 6 && strlen($pass_check) >= 6 ){
                    // are the password equal to eachother
                    if($pass == $pass_check){

                        if(strlen($street) > 0 && strlen($city) > 0 && strlen($country) > 0){

                            $myquery = "SELECT email FROM users where email = '".$email."'";
                            $result = $db->query($myquery);
                            $rows  = $result->rowCount();

                            if($rows == 0){

                                $encript_Pass = md5( $pass );
                                $db->beginTransaction();
                                $query = "CALL ADD_NEW_ACCOUNT('$fname','$lname','$email',$age,'$street','$city','$country','$encript_Pass')";
```

```
                                        $execute_call = $db-
>query($query);
                                        $count = $execute_call-
>rowCount();

                                        if($count == 1){

                                            $db->commit();
                                            $query = "CALL
GET_LAST_ACCOUNT_ID()";
                                            $result = $db-
>query($query);
                                            $lastid = $result->fetch();
                                            // add new information
to the session
                                            $_SESSION['user_id'] =
$lastid['account_no'];
                                            $_SESSION['fname'] =
$fname;
                                            $_SESSION['lname'] =
$lname;
                                            $_SESSION['role'] = 3;
                                            $_SESSION['user_token']
= $lastid['account_no'];


                                            $app-
>redirect('dashboard/user/'.$lastid['account_no']);


                                        }else{
                                            $error =  array("error"
=>"Database Error. Please Try Again Later.");
```

```
                                    $app-
>render('../api/resources/signup.php', array('myerror' => $error ));
                                }




                            }else{


                                $error =  array("error" =>"The
Username/Email already exists. Please enter a valid value.");
                                $app-
>render('../api/resources/signup.php', array('myerror' => $error ));


                            }




                        }else{
                            $error =  array("error" =>"A full address
must be provided. Please enter a valid value.");
                            $app-
>render('../api/resources/signup.php', array('myerror' => $error ));
                        }




                    }else{
                        $error =  array("error" =>"Password must be
the same. Please enter a valid value.");
                        $app->render('../api/resources/signup.php',
array('myerror' => $error ));
                    }
```

```
                }else{
                    $error =  array("error" =>"Password must be 6 or more characters. Please enter a valid value.");
                    $app->render('../api/resources/signup.php', array('myerror' => $error ));
                }



            }else{
                $error =  array("error" =>"Age is invalid. You must be over 18 to open an account. Please enter a valid value.");
                $app->render('../api/resources/signup.php', array('myerror' => $error ));
            }



        }else{
            $error =  array("error" =>"First or Last the name is blank. Please enter a valid value.");
            $app->render('../api/resources/signup.php', array('myerror' => $error ));
        }

    }else{

        $error =  array("error" =>"Email is not a valid. Please enter a valid value.");
        $app->render('../api/resources/signup.php', array('myerror' => $error ));

    }

}
```

```
// Show the Deposit Page
function deposit($value){
        $db = dbConn::getConnection();
        $app = Slim\Slim::getInstance();

        $user_details = getAccount($value);

        $app->render('../api/resources/deposit.php', array('user' => $user_details ));
}

// update the account balance - Deposit
function updateDeposit($value){
        $db = dbConn::getConnection();
        $app = Slim\Slim::getInstance();
        $request = $app->request();

        $user_details = getAccount($value);
        $account_id = $user_details['id'];

        $bal = htmlspecialchars(trim($request->post('input_dep')));
        // is the balance a floating number
        if(filter_var($bal, FILTER_VALIDATE_FLOAT) !== FALSE){
                // is the balance between this range i.e. decimal(13,2) in MySQL
                if($bal > 0 && $bal < 9999999999999.99){

                        $db->beginTransaction();
```

```
            $query = "CALL DEPOSIT_MONEY($account_id, $bal)";

            $execute_call = $db->query($query);
            $result = $execute_call->fetch();

            if($result == false){

                $db->commit();
                $user_details = getAccount($value);
                $message =  array("message" =>"Thank You. Your Money has 
been Deposited");
                $app->render('../api/resources/deposit.php', array('finish' => 
$message,'user' => $user_details ));



            }else{
                $user_details = getAccount($value);
                $error =  array("error" =>"Database Error. Please Try Again 
Later.");
                $app->render('../api/resources/deposit.php', 
array('myerror_up' => $error,'user' => $user_details ));
            }

        }else{
            $user_details = getAccount($value);
            $error =  array("error" =>"Deposit Amount has to be a positive 
numeric character betwen greater than &euro;0 and less than &euro;9999999999999.99");
            $app->render('../api/resources/deposit.php', array('myerror' => 
$error,'user' => $user_details ));
        }
```

```
    }else{
        $user_details = getAccount($value);
        $error =  array("error" =>"The value entered must be a numeric value. Please try again");
        $app->render('../api/resources/withdrawal.php', array('myerror' => $error,'user' => $user_details ));
    }
}



// Show the Withdrawal Page
function withdrawal($value){
    $db = dbConn::getConnection();
    $app = Slim\Slim::getInstance();

    $user_details = getAccount($value);

    $app->render('../api/resources/withdrawal.php', array('user' => $user_details ));
}

// update the account balance - Withdrawal
function updateWithdrawal($value){
    $db = dbConn::getConnection();
    $app = Slim\Slim::getInstance();
    $request = $app->request();

    $user_details = getAccount($value);

    $bal = htmlspecialchars(trim($request->post('input_with')));
    $account_num = htmlspecialchars(trim($request->post('account_num')));
    $balance = htmlspecialchars(trim($request->post('balance')));

    $result_of_bal = $balance - $bal;

    if(filter_var($bal, FILTER_VALIDATE_FLOAT) !== FALSE){
        // are they taking out more than they have
        if($result_of_bal >= 0 ){

            if($bal > 0 && $bal < 9999999999999.99){

                $db->beginTransaction();

                $query_with = "CALL WITHDRAW_MONEY($account_num,
$bal)";

                $execute_call = $db->query($query_with);

                $result_cash = $execute_call->fetch();

                if($result_cash  == false){

                    $db->commit();
                    $user_details = getAccount($value);
                    $message =  array("message" =>"Thank You. Your
Money has been Withdrawn");
                    $app->render('../api/resources/withdrawal.php',
array('finish' => $message,'user' => $user_details ));


                }else{
                    $user_details = getAccount($value);
                    $error =  array("error" =>"Database Error. Please Try
Again Later.");
                    $app->render('../api/resources/withdrawal.php',
array('myerror_up' => $error,'user' => $user_details ));
                }


            }else{


                $error =  array("error" =>"Withdrawal Amount has to be a
positive numeric character betwen greater than &euro;0 and less than
&euro;9999999999999.99");
                $app->render('../api/resources/withdrawal.php',
array('myerror' => $error,'user' => $user_details ));
            }



        }else{


            $error =  array("error" =>"Insufficient Funds. Please try again");
            $app->render('../api/resources/withdrawal.php', array('myerror' =>
$error,'user' => $user_details ));



        }


    }else{


        $error =  array("error" =>"The value entered must be a numeric value. Please
try again");
        $app->render('../api/resources/withdrawal.php', array('myerror' =>
$error,'user' => $user_details ));
```

```
    }

}

// Admin - Update Balance
function updateBalance($value){
    $db = dbConn::getConnection();
    $app = Slim\Slim::getInstance();
    $request = $app->request();
    $account_num = htmlspecialchars(trim($request->post('account_num')));
    $balance = htmlspecialchars(trim($request->post('balance')));

            if($balance > 0 && $balance < 9999999999999.99){

                        $db->beginTransaction();

                        $pass_query = "Call UPDATE_BALANCE($account_num, $balance)";

                        $balance_call = $db->query($pass_query);

                        $count = $balance_call->rowCount();

                        if($count == 1){

                            $db->commit();
                            $app->redirect('../../dashboard/admin/'.$_SESSION['user_id']);

                        }else{
```

```
                                            $user_details = getAccount($value);
                                            $myquery = "CALL
GET_ACCOUNT_TYPES()";
                                            $account_types = $db-
>query($myquery);


                                            $error =  array("error" =>"There was an
error on the database. Please try later.");
                                            $app-
>render('../api/resources/user_details.php', array('myerror_bal' => $error,

                                      'user' => $user_details,
'account_types'=>$account_types ));
                                      }


                  }else{
                        $user_details = getAccount($value);
                        $myquery = "CALL GET_ACCOUNT_TYPES()";
                        $account_types = $db->query($myquery);


                        $error =  array("error" =>"New Balance connot be less than 0.
Please enter a valid value.");
                        $app->render('../api/resources/user_details.php',
array('myerror_bal' => $error,

                  'user' => $user_details, 'account_types'=>$account_types ));
                  }
}



// Show Tranaction History
```

```
function history($value){
	$db = dbConn::getConnection();
	$app = Slim\Slim::getInstance();

	$user_details = getAccount($value);
	// show the transaction based on the user
	$his_query = "CALL GET_TRANSACTIONS($value)";
	$trans = $db->query($his_query);

	$app->render('../api/resources/user_history.php', array('user' =>
$user_details,'trans'=> $trans));
}
// List the accounts. used for admin and support login landing page
function listAccounts($value){

	$db = dbConn::getConnection();
	$app = Slim\Slim::getInstance();
	$user_details = getAccount($value);

	$acc_query = "CALL GET_ACCOUNTS()";
	$accounts = $db->query($acc_query);

	$app->render('../api/resources/user_account.php', array('user' =>
$user_details,'accounts'=>$accounts ));

}
// Show the add account page to the admin role
function addAccount($value){

	$db = dbConn::getConnection();
	$app = Slim\Slim::getInstance();
	$user_details = getAccount($value);

	$app->render('../api/resources/addaccount.php', array('user' => $user_details));

}
//Create a New User from within the admin area
function createAccountInAdmin($value){
	$app = Slim\Slim::getInstance();
	$db = dbConn::getConnection();
	$request = $app->request();
	$email = trim($request->post('inputEmail4'));
	$fname = htmlspecialchars(trim($request->post('input_fname')));
	$lname = htmlspecialchars(trim($request->post('input_lname')));
	$age = htmlspecialchars(trim($request->post('input_age')));
	$street = htmlspecialchars(trim($request->post('input_street')));
	$city = htmlspecialchars(trim($request->post('input_city')));
	$country = htmlspecialchars(trim($request->post('input_country')));

	$pass = trim($request->post('input_pass'));
	$pass_check = trim($request->post('input_cpass'));

	$options_age = array(
   'options' => array(
		'min_range' => 18,
		'max_range' => 120,
		)
	);
```

```
    if(filter_var($email, FILTER_VALIDATE_EMAIL)){

        if(strlen($fname) > 0 && strlen($lname) > 0){

            if(filter_var($age, FILTER_VALIDATE_INT, $options_age) !== FALSE){

                if(strlen($pass) >= 6 && strlen($pass_check) >= 6 ){

                    if($pass == $pass_check){

                        if(strlen($street) > 0 && strlen($city) > 0 &&
strlen($country) > 0){

                            $myquery = "SELECT email FROM users
where email = '".$email."'";
                            $result = $db->query($myquery);
                            $rows  = $result->rowCount();

                            if($rows == 0){

                                $encript_Pass = md5( $pass );
                                $db->beginTransaction();
                                $query = "CALL
ADD_NEW_ACCOUNT('$fname','$lname','$email',$age,'$street','$city','$country','$encript_P
ass')";


                                $execute_call = $db-
>query($query);
                                $count = $execute_call-
>rowCount();
```

```
                                if($count == 1){

                                    $db->commit();

                                    $app-
>redirect('../../dashboard/admin/'.$_SESSION['user_id']);


                                }else{
                                    $error =  array("error"
=>"Database Error. Please Try Again Later.");
                                    $user_details =
getAccount($value);
                                    $app-
>render('../api/resources/addaccount.php', array('user' => $user_details, 'myerror' =>
$error ));
                                }



                            }else{


                                $error =  array("error" =>"The
Username/Email already exists. Please enter a valid value.");
                                $user_details =
getAccount($value);
                                $app-
>render('../api/resources/addaccount.php', array('user' => $user_details, 'myerror' =>
$error ));


                            }



                        }else{
                            $error =  array("error" =>"A full address must be provided. Please enter a valid value.");
                            $user_details = getAccount($value);
                            $app->render('../api/resources/addaccount.php', array('user' => $user_details, 'myerror' => $error ));
                        }



                    }else{
                        $error =  array("error" =>"Password must be the same. Please enter a valid value.");
                        $user_details = getAccount($value);
                        $app->render('../api/resources/addaccount.php', array('user' => $user_details, 'myerror' => $error ));
                    }



                }else{
                    $error =  array("error" =>"Password must be 6 or more characters. Please enter a valid value.");
                    $user_details = getAccount($value);
                    $app->render('../api/resources/addaccount.php', array('user' => $user_details, 'myerror' => $error ));
                }



            }else{
                $error =  array("error" =>"Age is invalid. You must be over 18 to open an account. Please enter a valid value.");
                $user_details = getAccount($value);
```

```
					$app->render('../api/resources/addaccount.php', array('user' => $user_details, 'myerror' => $error ));
				}



			}else{
				$error =  array("error" =>"First or Last the name is blank. Please enter a valid value.");
				$user_details = getAccount($value);
				$app->render('../api/resources/addaccount.php', array('user' => $user_details, 'myerror' => $error ));
			}

		}else{



			$error =  array("error" =>"Email is not a valid. Please enter a valid value.");
			$user_details = getAccount($value);
			$app->render('../api/resources/addaccount.php', array('user' => $user_details, 'myerror' => $error ));

		}

}
// Show Report 1 - Top Balances
function topBalances($value){
	// Get an instance of the Slim Framework
	$app = Slim\Slim::getInstance();
	// Get an instance of the database connection
	$db = dbConn::getConnection();
```

```
        // Get the account information of the person using the page
        // for navagation puropses
        $user_details = getAccount($value);

        // Call the top Balances procedure
        $bal_query = "CALL GET_Top_BALANCES()";
        $balance_res = $db->query($bal_query);
        $balances = $balance_res->fetchAll(PDO::FETCH_ASSOC);

        // Put the result on to the page so it can be accessed by the html and the php.
        $app->render('../api/resources/report_top_bal.php', array('user' =>
$user_details,'balances' =>$balances ));

}

// Show report 2 - Top Regions
function topRegions($value){
        $app = Slim\Slim::getInstance();
        $db = dbConn::getConnection();
        $user_details = getAccount($value);

        // Call the top Regions procedure
        $reg_query = "CALL GET_Top_REGIONS()";
        $region_res = $db->query($reg_query);
        $regions = $region_res->fetchAll(PDO::FETCH_ASSOC);
        // Put the result on to the page so it can be accessed by the html and the php.
        $app->render('../api/resources/report_top_reg.php', array('user' => $user_details,
'regions' => $regions));

}
```

```
// Show the dates used to search for to be used in report 2 - View Deposits By Day
function depositsByDay($value){

	$app = Slim\Slim::getInstance();
	$db = dbConn::getConnection();
	$user_details = getAccount($value);

	// Call the Get Deposit Day Function
	$days_query = "Call GET_DEPOSIT_DAY()";
	$days_res = $db->query($days_query);
	$deposit_days = $days_res->fetchAll(PDO::FETCH_ASSOC);
	// Put the result on to the page so it can be accessed by the html and the php.
	$app->render('../api/resources/report_dep_day.php', array('user' =>
$user_details,'deposit_days' => $deposit_days));
}
// Display report 2 - View Deposits By Day
function displayDeposits($value){

	$app = Slim\Slim::getInstance();
	$db = dbConn::getConnection();

	$request = $app->request();
	// Take the date in form the user.
	$search_date = trim($request->post('input_date'));

	$user_details = getAccount($value);

	$db = dbConn::getConnection();
	// Call the Get Deposit Date Function
```

```
        $dates_query = "Call GET_DEPOSIT_DATE('".$search_date."')";


        $dates_res = $db->query($dates_query);

        $deposits = $dates_res->fetchAll(PDO::FETCH_ASSOC);


        // Put the result on to the page so it can be accessed by the html and the php.

        $app->render('../api/resources/report_dep_day.php', array('user' =>
$user_details,'deposits'=>$deposits));

}

// Show the dates used to search for to be used in report 2 - View Withdrawals By Day

function withdrawsByDay($value){


        $app = Slim\Slim::getInstance();

        $db = dbConn::getConnection();

        $user_details = getAccount($value);


        // Call the Get Withdrawals Day Function

        $with_query = "Call GET_WITHDRAWS_DAY()";

        $with_res = $db->query($with_query );

        $withdraw_days = $with_res->fetchAll(PDO::FETCH_ASSOC);

        // Put the result on to the page so it can be accessed by the html and the php.

        $app->render('../api/resources/report_with_day.php', array('user' =>
$user_details,'withdraw_days' => $withdraw_days));

}


// Display report 2 - View Withdrawals By Day

function displayWithdrawals($value){


        $app = Slim\Slim::getInstance();

        $db = dbConn::getConnection();
```

```
	$request = $app->request();
	// Take the date in form the user.
	$search_date = trim($request->post('input_date'));

	$user_details = getAccount($value);

	// Call the Get Withdrawals Date Function
	$with_dates_query = "Call GET_WITHDRAW_DATE('".$search_date."')";
	$with_dates_res = $db->query($with_dates_query);
	$withdrawls = $with_dates_res->fetchAll(PDO::FETCH_ASSOC);

	// Put the result on to the page so it can be accessed by the html and the php.
	$app->render('../api/resources/report_with_day.php', array('user' =>
$user_details,'withdrawls'=>$withdrawls));
}



// Show report 5 - Customer Tickets - see how many tcikets each customer has.
function customerTickets($value){
	$app = Slim\Slim::getInstance();
	$db = dbConn::getConnection(); // Mongodb connection object
	$db_mongo_coll = mongoConn::getConnection(); // Mongodb connection object
	$user_details = getAccount($value);
	// cll the Get Ticket Information function
	$cus_query = "CALL GET_TICKET_INFO()";
	$res = $db->query($cus_query);
	$customer_info = $res->fetchAll(PDO::FETCH_ASSOC);
	$counter = 0;
```

```
    // Iterate through the array and use it to call the mongodb Nosql database.
    foreach ($customer_info as $row) {

            foreach ($row as $key=>$value) {
                if($key == 'id'){
                    // Count the amount tickets for a value (accounr number) in the array
                    $count = $db_mongo_coll->count(array('account_num' => $value));
                    if($count === 0){ // If there are no tickers for this account
                        unset($customer_info[$counter]); // Unset the array's row. There for not seing it in the results
                    }else{
                        // If there is an account add a key to that array with the number of tickets
                        $customer_info[$counter]['tickets'] = $count;
                    }
                }
            }
        // increase the counter i.e. the row number.
        $counter++;
    }
    // Put the result on to the page so it can be accessed by the html and the php.
    $app->render('../api/resources/report_tickets.php', array('user' => $user_details,'ticket_info' => $customer_info));

}

// Show the Open Ticket screen
function openTicket($value){
    $app = Slim\Slim::getInstance();
    $db = dbConn::getConnection();

    $user_details = getAccount($value);

    $app->render('../api/resources/open_ticket.php', array('user' => $user_details));
}
// Handle the ticket/form being sent in to NoSQL database
function postTicket($value){

    $app = Slim\Slim::getInstance();
    $db = dbConn::getConnection();

    $request = $app->request();
    $message = htmlspecialchars(trim($request->post('message')));
    $priority = htmlspecialchars(trim($request->post('priority')));
    $area = htmlspecialchars(trim($request->post('area')));
    $fname = htmlspecialchars(trim($request->post('fname')));
    $lname = htmlspecialchars(trim($request->post('lname')));
    $account_num = htmlspecialchars(trim($request->post('account_num')));
    $status = "Open";

    $db_mongo_coll = mongoConn::getConnection(); // Get a collection object to mongo

    if(strlen($message) > 0){

        try{ // build the inset statement
            $result = $db_mongo_coll->insert(array(
                'ts' => new MongoDate(),

                'account_num'=>$account_num,

                'name'=>$fname.' '.$lname,

                'message'=>$message ,

                'area'=>$area ,

                'priority'=>$priority,

                'status'=>$status

            ));

        }catch(MongoCursorException $mce){

            $user_details = getAccount($value);

            $error =  array("error" =>"Sorry There was an error when posting the ticket. Please try again later.");

            $app->render('../api/resources/open_ticket.php', array('user' => $user_details,'myerror' => $error));

        }


        $user_details = getAccount($value);

        $message =  array("message" =>"Your post was successfully sent. The Help desk will get back to you soon as they can");

        $app->render('../api/resources/open_ticket.php', array('user' => $user_details,'finish' => $message));




    }else{

        $user_details = getAccount($value);

        $error =  array("error" =>"No Message Entered. Please enter a valid message.");

        $app->render('../api/resources/open_ticket.php', array('user' => $user_details,'myerror' => $error));


    }
```

```
}

// show the current tickets for a user
function viewUserTickets($value){

        $app = Slim\Slim::getInstance();
        $db = dbConn::getConnection();

        $user_details = getAccount($value);

        $db_mongo_coll = mongoConn::getConnection();
        // find a ticket by sccount number and show in reverse order
        $user_tickets = $db_mongo_coll->find(array('account_num'=> $user_details['id'] ))-
>sort(array('_id' => -1));

        $app->render('../api/resources/view_ticket.php', array('user' =>
$user_details,'tickets' => $user_tickets));
}

// show the all tickets
function viewAllTickets($value){

        $app = Slim\Slim::getInstance();
        $db = dbConn::getConnection();

        $user_details = getAccount($value);

        $db_mongo_coll = mongoConn::getConnection();
        // find all in reverse order
        $user_tickets = $db_mongo_coll->find()->sort(array('_id' => -1));


        $app->render('../api/resources/view_all_tickets.php', array('user' =>
$user_details,'tickets' => $user_tickets));
}
// Show the reply to a ticket forms
function replyTicket($value){


        $app = Slim\Slim::getInstance();
        $db = dbConn::getConnection();
        $user_details = getAccount($value);
        $request = $app->request();
        $ticket_id = $request->post('ticket_id');


        $db_mongo_coll = mongoConn::getConnection();
        // Find one by ticket id
        $user_ticket = $db_mongo_coll->findOne(array('_id'=> new MongoId($ticket_id )));


        $app->render('../api/resources/reply_ticket.php', array('user' => $user_details,'reply'
=> $user_ticket));
}



// Reply to a ticket
function postReply($value){


        $app = Slim\Slim::getInstance();
        $db = dbConn::getConnection();
        $db_mongo_coll = mongoConn::getConnection();
        $user_details = getAccount($value);
        $request = $app->request();

        $ticket_id = $request->post('ticket_id');

        $message = htmlspecialchars(trim($request->post('message')));


        if(strlen($message) > 0){


                $newStatus = array('$set' =>array("status"=>
"Closed","response"=>$message));

                // update a ticket by ticket id using the array of detsil to channge. This is
explained in the documentation

                $update_result = $db_mongo_coll->update(array("_id"=>new
MongoId($ticket_id )), $newStatus);




                $user_tickets = $db_mongo_coll->find()->sort(array('_id' => -1));

                $app->render('../api/resources/view_all_tickets.php', array('user' =>
$user_details,'tickets' => $user_tickets));


        }else{


                $error =  array("error" =>"No Message Entered. Please enter a valid
message.");

                $user_ticket = $db_mongo_coll->findOne(array('_id'=> new
MongoId($ticket_id )));

                $app->render('../api/resources/reply_ticket.php', array('user' =>
$user_details,'reply' => $user_ticket,'myerror_reply' => $error));

        }

}



// Change Status of a ticket
```

```
function changeStatus($value){


        $app = Slim\Slim::getInstance();

        $db = dbConn::getConnection();

        $user_details = getAccount($value);

        $request = $app->request();

        $ticket_id = $request->post('ticket_id');

        $db_mongo_coll = mongoConn::getConnection();


        if(isset($ticket_id)){


                $newStatus = array('$set' =>array("status"=> "Review"));

                // update a ticket by ticket id using the array of detsil to channge. This is explained in the documentation

                $update_result = $db_mongo_coll->update(array("_id"=>new MongoId($ticket_id )), $newStatus);


                $db_mongo_coll = mongoConn::getConnection();

                $user_tickets = $db_mongo_coll->find()->sort(array('_id' => -1));

                $app->render('../api/resources/view_all_tickets.php', array('user' => $user_details,'tickets' => $user_tickets));


        }else{


                $error =  array("error" =>"Database error. Please try again later.");

                $user_ticket = $db_mongo_coll->findOne(array('_id'=> new MongoId($ticket_id )));

                $app->render('../api/resources/reply_ticket.php', array('user' => $user_details,'reply' => $user_ticket,'myerror' => $error));

        }
}



// Delete a ticket
function postDelete($value){


        $app = Slim\Slim::getInstance();
        $db = dbConn::getConnection();
        $user_details = getAccount($value);
        $request = $app->request();
        $ticket_id = $request->post('ticket_id');
        $db_mongo_coll = mongoConn::getConnection();
        // remove a ticket with a chosen id
        $db_mongo_coll->remove(array('_id' => new MongoId($ticket_id)), true);


        $user_tickets = $db_mongo_coll->find()->sort(array('_id' => -1));


        $app->render('../api/resources/view_all_tickets.php', array('user' =>
$user_details,'tickets' => $user_tickets));
}


?>
```

Appendix – MySQL Database Singleton Class – database.php

```
<?php
//db connection class using singleton pattern
class dbConn{

        //variable to hold connection object.
        protected static $db;
        //private construct - class cannot be instatiated externally.
        private function __construct() {
```

```
        $dsn = 'mysql:host=localhost;dbname=bankofrorybd';
        $username = 'root';
        $password = '';

        try {
            // assign PDO object to db variable
            self::$db = new PDO( $dsn, $username, $password );
        }
        catch (PDOException $e) {
            echo "Connection Error: Please Try Later";

        }

    }

    // get connection function. Static method - accessible without instantiation
    public static function getConnection() {

        if (!self::$db) {

            new dbConn(); //new connection object.
        }

    return self::$db;
    }
    // close the connection to the database
    public static function close_connection(){
        self::$db = null;
    }
}
```

Appendix – NoSQL Database Singleton Class – database_mongo.php

```
<?php
//db connection class using singleton pattern
class mongoConn{

    //variable to hold connection object.
    protected static $dbmongo;

    //private construct - class cannot be instatiated externally.
    private function __construct() {
```

```
                try {
                        self::$dbmongo = new Mongo(); // new mongo object
                }
                catch (Exception $e) {

                        echo "Connection Error: Please Try Later";
                }
        }
        // get connection function. Static method - accessible without instantiation
        public static function getConnection() {

                if (!self::$dbmongo) {
                        new mongoConn(); //new connection object.
                }
                $dbname = self::$dbmongo->selectDB('bankofrory'); // Set the table
                $ticket = $dbname->ticket; // set the collection

        return $ticket;
        }
        // close the connection to the database
        public static function close_connection(){

                self::$dbmongo = null;
        }
}
?>
```

Appendix – mystyles.js

```
// Alert function for the ticket systemLanguage
// Used to view messages and to view replys
function fullMessage(data) {
        alert(data);
}

// Document ready function
$(document).ready( function () {

        // Calling the datatable using an unsorted list
        $('#data_table').DataTable(
                {
                        // Disable initial sort
                        "aaSorting": []
                });
        // Calling the datatable using a sorted list
        $('#data_table_sort').DataTable();

} );
```

Appendix – mystyles.css

```
@charset "utf-8";
/* CSS Document */
/* Front end CSS */
.front_body{
        color:white;
}
footer{
        color: black;
        font-style: italic;
        font-size: 10px;
}
#headingWhite{
        color: White;
        font-size:48px;
}
#centertext{
        text-align:center;
}

#reglink{
   padding-top: 20px;
   text-align: center;
}
img {
   max-width: 100%;
   height: auto;
}

/*Backend CSS*/
.error_message{
   padding: 10px;
        color:red;
}
```

```
.tab {
margin-left: 40px;
}
/* Tables */
table.view_table{
   width:800px;
   margin-bottom: 20px;
}
table.view_table th{
   text-align: left;
   width:25%;
   vertical-align: top;
          padding-bottom: 10px;

}
table#data_table td {
   text-align: center;

}
table#data_table_sort td{
   text-align: center;

}
/* Setting the color of the ticket status option*/
#status_closed{
          color:green;
}

#status_review{
          color:orange;
}
/* Setting the color of the account option option*/
#status_open{
          color:red;
}
#account_current{
          color:blue;
}
#account_student{
          color:brown;
}
```

Appendix – static_fn.php

```
/* Function to show the Front end static pages*/
// Show the Main Page
function getMain() {
	$app = Slim\Slim::getInstance();
	$app->render('../api/resources/main.php');
}

// Show the About Page
function getabout() {
	$app = Slim\Slim::getInstance();
	$app->render('../api/resources/about.php');
}
// Show the Login Page
function getlogin() {
	$app = Slim\Slim::getInstance();
	$app->render('../api/resources/login.php');
}
// Show the Signup Page
function getsignup() {
	$app = Slim\Slim::getInstance();
	$app->render('../api/resources/signup.php');
}
```

Appendix – access.php

```
<?php
/* Login, Logout, Error function*/

// Valadate the Login
function validateLogin() {
	$app = Slim\Slim::getInstance();  // Creating a Slim instance
	$request = $app->request(); // Creating a Slim request object
	// Taking in the Username and password
	$username = htmlspecialchars($request->post('username'));
	$password = $request->post('password');

	// Encrypting the password and checking the password and the user name againest the
database
	$encript_Pass = md5( $password );
   $query = "CALL CHECK_LOGIN_DETAILS('$username','$encript_Pass');";
	$db = dbConn::getConnection(); // Create an instance of the database
   $result = $db->query($query);
   $current_user = $result->fetch();

	if(!empty($current_user)){ // If it is in the database
```

```
        // Add session variables used to secure pages and for role controle
        $_SESSION['user_id'] = $current_user['account_no'];
        $_SESSION['fname'] = $current_user['first_name'];
        $_SESSION['lname'] = $current_user['last_name'];
        $_SESSION['role'] = $current_user['user_roles_role_id'];
        $_SESSION['user_token'] = $current_user['account_no'];


        if($current_user['user_roles_role_id'] == 1 || $current_user['user_roles_role_id'] ==
2){
            // Redirest to the Admin section or the support section
            $app->redirect('dashboard/admin/'.$current_user['account_no']);

        }else{
            // Redirect to the User section
            $app->redirect('dashboard/user/'.$current_user['account_no']);
        }

    }else{

         $error =  array("error" =>"Login Details Not Found");
         // Render the page
        $app->render('../api/resources/login.php', array('myerror' => $error ));
    }
 }

 // Log a a user (all users) out of the system
 function logout(){
  $app = Slim\Slim::getInstance();

    dbConn::close_connection(); // Close the connection to the MySQL database
    mongoConn::close_connection(); // Close the connection to the NoSQL database

    // remove all session variables
    session_unset();
    // destroy the session
    session_destroy();

    // User Message
  $message =  array("message" =>"You Have Been Logged Out");
    // Render the page
    $app->render('../api/resources/login.php', array('finish' => $message ));

}

// General Purpose Error Page - Used mainly to keep users out of the admin section and the support
section.
```

```
// Also used to keep out people not logged on to the system.
function error(){
  $app = Slim\Slim::getInstance();

        dbConn::close_connection(); // Close the connection to the MySQL database
        mongoConn::close_connection(); // Close the connection to the NoSQL database

        // remove all session variables
        session_unset();
        // destroy the session
        session_destroy();
        // Show the error
        $error = array("error" =>"Unauthorised Access. Please Login to use this site.");
        $app->render('../api/resources/error.php', array('myerror' => $error ));

}

?>
```

Appendix – header.php

```
<html lang="en">
  <head>
    <meta charset="utf-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1">
    <meta name="description" content="">
    <meta name="author" content="">
    <!-- <link rel="icon" href="../../favicon.ico"> -->

    <title>Bank of Rory - <?php echo $pagename; ?></title>

        <!-- Latest compiled and minified CSS -->
        <link rel="stylesheet" href="css/bootstrap.min.css">

        <!-- Optional theme -->
        <link rel="stylesheet" href="css/bootstrap-theme.min.css">

        <!-- My Styles -->
        <link href="css/mystyles.css" rel="stylesheet" type="text/css">
        <?php if($pagename == "Log In"){?>
                <!-- Sign in Css -->
                <link href="css/signin.css" rel="stylesheet" type="text/css">
        <?php }?>
    <!-- HTML5 shim and Respond.js IE8 support of HTML5 elements and media queries -->
    <!--[if lt IE 9]>
      <script src="https://oss.maxcdn.com/html5shiv/3.7.2/html5shiv.min.js"></script>
      <script src="https://oss.maxcdn.com/respond/1.4.2/respond.min.js"></script>
    <![endif]-->
  </head>

  <body class="front_body">
```

Appendix – footer.php

```
		<footer class="footer">
		  <small>
				<p id="centertext">&copy; Bank of Rory 2014</p>
		  </small>
		</footer>

		<!-- Bootstrap core JavaScript
    ================================================== -->
    <!-- Placed at the end of the document so the pages load faster -->
    <!-- <script
src="https://ajax.googleapis.com/ajax/libs/jquery/1.11.1/jquery.min.js"></script> -->
		 <script src="js/jquery-1.11.1.js"></script>
    <script src="js/bootstrap.min.js"></script>
    <!-- IE10 viewport hack for Surface/desktop Windows 8 bug -->
    <script src="js/ie10-viewport-bug-workaround.js"></script>
  </body>
</html>
```

Appendix – header_dash.php

```
<html lang="en">

<head>
		<meta charset="utf-8"/>
		<title>Bank of Rory - <?php echo $pagename ?></title>

		<link rel="stylesheet" href="../../css/layout.css" type="text/css" media="screen" />
		<!--[if lt IE 9]>
		<link rel="stylesheet" href="css/ie.css" type="text/css" media="screen" />
		<script src="http://html5shim.googlecode.com/svn/trunk/html5.js"></script>
```

```
        <![endif]-->

        <script src="../../js/jquery-1.11.1.js" type="text/javascript"></script>

        <script src="../../js/hideshow.js" type="text/javascript"></script>
        <script src="../../js/jquery.tablesorter.min.js" type="text/javascript"></script>
        <script type="text/javascript" src="../../js/jquery.equalHeight.js"></script>

                <!-- Latest compiled and minified CSS -->
        <link rel="../../stylesheet" href="css/bootstrap.min.css">

        <!-- Optional theme -->
        <link rel="../../stylesheet" href="css/bootstrap-theme.min.css">


        <!-- data tables -->
        <script src="../../js/jquery.dataTables.js"></script>
        <link href="../../css/jquery.dataTables.css" rel='stylesheet' type='text/css'>

   <!-- My Styles -->
        <link href="../../css/mystyles.css" rel="stylesheet" type="text/css">

         <!-- My Styles -->
        <script src="../../js/mystyles.js"></script>


</head>
```

Appendix – footer_dash.php

```
  <footer class="footer">
            <small>
                    <p id="centertext">&copy; Bank of Rory 2014</p>
            </small>
        </footer>
  </body>

</html>
```

Appendix – side_bar.php

```
<aside id="sidebar" class="column">

	<?php if($_SESSION['role'] == 1){ ?>
				<h3>Account Options</h3>
				<ul class="toggle">
					<li class="icn_categories"><a href="../../dashboard/admin/<?php echo $_SESSION['user_id'];?>">List Accounts</a></li>
					<li class="icn_view_users"><a href="../../dashboard/add_account/<?php echo $_SESSION['user_id'];?>">Add Account</a></li>
				</ul>

				<h3>My Account</h3>
				<ul class="toggle">
					<li class="icn_profile"><a href="../../dashboard/user_details/<?php echo $_SESSION['user_id'];?>">Update Account</a></li>
				</ul>
				<h3>Reports</h3>
				<ul class="toggle">
					<li class="icn_photo"><a href="../../dashboard/top_balances/<?php echo $_SESSION['user_id'];?>">Top Balances</a></li>
					<li class="icn_photo"><a href="../../dashboard/top_region/<?php echo $_SESSION['user_id'];?>">Top Regions</a></li>
					<li class="icn_photo"><a href="../../dashboard/deposits_by_day/<?php echo $_SESSION['user_id'];?>">View Deposits By Day</a></li>
					<li class="icn_photo"><a href="../../dashboard/withdraw_by_day/<?php echo $_SESSION['user_id'];?>">View Withdrawals By Day</a></li>
					<li class="icn_photo"><a href="../../dashboard/customer_tickets/<?php echo $_SESSION['user_id'];?>">Customer Tickets</a></li>
				</ul>
```

```
            <h3>Help Disk</h3>

            <ul class="toggle">

                <li class="icn_tags"><a
href="../../dashboard/view_all_tickets/<?php echo($user['account_no']);?>">View All
Tickets</a></li>



            </ul>


        <?php }else if($_SESSION['role'] == 2){ ?>


            <h3>Account Options</h3>

            <ul class="toggle">

                <li class="icn_categories"><a href="../../dashboard/admin/<?php
echo $_SESSION['user_id'];?>">List Accounts</a></li>

            </ul>


            <h3>My Account</h3>

            <ul class="toggle">

                <li class="icn_profile"><a href="../../dashboard/user_details/<?php
echo $_SESSION['user_id'];?>">Update Account</a></li>

            </ul>


            <h3>Help Disk</h3>

            <ul class="toggle">

                <li class="icn_tags"><a
href="../../dashboard/view_all_tickets/<?php echo($user['account_no']);?>">View All
Tickets</a></li>



            </ul>


        <?php }else{?>
```

```
                        <h3>My Account</h3>

                        <ul class="toggle">

                                <li class="icn_profile"><a href="../../dashboard/user/<?php
echo($user['account_no']);?>">View Account</a></li>

                                <li class="icn_edit_article"><a
href="../../dashboard/user_details/<?php echo($user['account_no']);?>">Update Account</a></li>

                        </ul>



                        <h3>Account Options</h3>

                        <ul class="toggle">

                                <li class="icn_edit_article"><a
href="../../dashboard/user_deposit/<?php echo($user['account_no']);?>">Deposit</a></li>

                                <li class="icn_edit_article"><a
href="../../dashboard/user_withdrawal/<?php echo($user['account_no']);?>">Withdrawal</a></li>

                                <li class="icn_categories"><a
href="../../dashboard/user_history/<?php echo($user['account_no']);?>">Account History</a></li>

                        </ul>


                        <h3>Help Disk</h3>

                        <ul class="toggle">

                                <li class="icn_tags"><a href="../../dashboard/view_ticket/<?php
echo($user['account_no']);?>">View Tickets</a></li>

                                <li class="icn_new_article"><a
href="../../dashboard/open_ticket/<?php echo($user['account_no']);?>">Open Ticket</a></li>

                        </ul>


                <?php }?>



                <footer>

                        <hr />
```

```
                    <p id="centertext"><img src="../../images/borlogo.png" alt="Bank of Rory
Logo" width="75" height="75" align="middle" ></p>


            </footer>

        </aside><!-- end of sidebar -->
```

Appendix – adout.php

```
 <?php $pagename = "About"; ?>
<?php include 'view/header.php'; ?>

  <!-- Fixed navbar -->
  <div class="navbar navbar-default navbar-fixed-top" role="navigation">
    <div class="container">
      <div class="navbar-header">
        <button type="button" class="navbar-toggle collapsed" data-toggle="collapse" data-
target=".navbar-collapse">
          <span class="sr-only">Toggle navigation</span>
          <span class="icon-bar"></span>
          <span class="icon-bar"></span>
          <span class="icon-bar"></span>
        </button>
        <a class="navbar-brand" href="./"><img src="images/icon.png" alt="Bank of Rory
Logo" align="middle">&nbsp;Bank of Rory</a>
      </div>
      <div class="navbar-collapse collapse">
        <ul class="nav navbar-nav">
          <li><a href="./">Home</a></li>
          <li class="active"><a href="./about">About</a></li>
        </ul>
        <ul class="nav navbar-nav navbar-right">
          <li><a href="./login">Log in</a></li>
          <li><a href="./signup">Sign Up</a></li>
        </ul>
      </div><!--/.nav-collapse -->
    </div>
  </div>

  <div class="container">

    <!-- Main component for a primary marketing message or call to action -->
    <div class="jumbotron">
          <p>&nbsp;</p>
     <div id="headingWhite"><img src="images/borlogo.png" alt="Bank of Rory Logo"
align="middle">&nbsp;Bank of Rory - About</div>
     <p>The Bank of Rory bank is a well-established online bank since 2014. We have lots of
happy customers. They are happy to bank with us for many different reasons.</p>
                  <p class="tab">Great bank rates.</p>
                  <p class="tab">Able to deposit and withdraw money as you wish.</p>
                  <p>If you have an enquiry or need help you can ask our support team and
they will get back to you as soon as possible.<br/>Bank with us now and avail of our great
services.

                  </p>
                  <p>Bank with us now with Bank of Rory. You can take that to the back.</p>
     <p>&nbsp;</p>
<p>
    <a class="btn btn-lg btn-primary" id="bag" href="./signup" role="button">Sign Up Now
&raquo;</a><img src="images/bank-icon.png" alt="bank" width="138" height="138"
align="right">
    </p>
    </div>

    </div>

   </div> <!-- /container -->
        <?php include 'view/footer.php'; ?>
```

Appendix – addaccount.php

```
<?php
// Used to Keep unregestered users out of the backend
// also used to keep the user in their own section
$app = Slim\Slim::getInstance();
if(isset($_SESSION['role']))
{
        if($_SESSION['role'] == 1){


 $pagename = "Add New Account";
 include 'view/header_dash.php';
 ?>
<!doctype html>
<body>
```

```
        <header id="header">
            <hgroup>
                <h1 class="site_title">Bank of Rory - <a
href="../../dashboard/admin/<?php echo($_SESSION['user_id']);?>">Dashboard</a></h1>
                <h2 class="section_title">&nbsp;</h2><div
class="btn_view_site"><a href="../../dashboard/user_details/<?php echo
$_SESSION['user_id'];?>"><?php echo $_SESSION['fname'].'
'.$_SESSION['lname']?></a></div>
                </h2><div class="btn_view_site"><a href="../../logout">Log
Out</a></div>
            </hgroup>
        </header> <!-- end of header bar -->

        <section id="secondary_bar">
            <div class="user">
            </div>
            <div class="breadcrumbs_container">
                <article class="breadcrumbs"><a
href="../../dashboard/admin/<?php echo $_SESSION['user_id'];?>">Dashboard</a><div
class="breadcrumb_divider"></div> <a href="../../dashboard/add_account/<?php echo
$_SESSION['user_id'];?>" class="current">Add New Account</a> </article> </article>
            </div>
        </section><!-- end of secondary bar -->

    <?php  require 'view/side_bar.php';?>
    <section id="main" class="column">

      <div class="clear"></div><!-- end of post new article -->

        <article class="module width_full">
          <header><h3>Add New Account</h3></header>
                <div class="module_content">
                    <h1>Add New Account</h1>
                    <p>Please fill out the details below to create a new
account</p>

                    <div>
                        <?php if (isset($myerror)) { ?>
                                <div class="alert alert-danger"
role="alert">
                                        <p class="alert-
link error_message">Error: <?php echo $myerror['error'];?> </p>
                                </div>
                        <?php }  ?>
```

```
                                        <form class="form-horizontal" role="form"
method="POST" action="../../dashboard/add_account/<?php echo
$_SESSION['user_id']?>">
                                        <table class="view_table">



                                         <tr>
                                         <div class="form-group">
                                              <th><label for="inputEmail4" class="col-
sm-2 control-label">Username/Email</label></th>
                                              <td><input type="email" class="form-
control" name="inputEmail4" placeholder="Email Address" required autofocus></td>
                                         </div>
                                         </tr>
                                         <tr>
                                         <div class="form-group">
                                              <th><label for="input_fname"
class="col-sm-2 control-label">First Name</label></th>

                                               <td><input type="text" class="form-
control" name="input_fname" placeholder="First Name" required></td>


                                         </div>
                                         </tr>
                                         <tr>
                                         <div class="form-group ">
                                              <th><label for="input_lname"
class="col-sm-2 control-label">Last Name</label></th>

                                               <td> <input type="text" class="form-
control" name="input_lname" placeholder="Last Name" required></td>


                                         </div>
                                         </tr>
                                         <tr>

                                         <div class="form-group ">
                                              <th><label for="input_age" class="col-
sm-2 control-label">Age</label></th>
```

```
                 <td><input type="text" class="form-control" name="input_age" placeholder="Age" required></td>

            </div>
            </tr>
            <tr>

            <div class="form-group">
                <th><label for="input_street" class="col-sm-2 control-label">Street</label></th>

                 <td><input type="text" class="form-control" name="input_street" placeholder="Street" required></td>

            </div>
            </tr>
            <tr>

            <div class="form-group">
                <th><label for="input_city" class="col-sm-2 control-label">City</label></th>

                 <td><input type="text" class="form-control" name="input_city" placeholder="City" required></td>


            </div>
            </tr>
            <tr>
            <div class="form-group">
                <th><label for="input_country" class="col-sm-2 control-label">Country</label></th>

                 <td><input type="text" class="form-control" name="input_country" placeholder="Country" required></td>

            </div>
            </tr>
            <tr>

            <div class="form-group">
                <th><label for="input_pass" class="col-sm-2 control-label">Password</label></th>
```

```
                                   <td><input type="password" class="form-control" name="input_pass" placeholder="Password" required></td>

                              </div>
                              </tr>
                              <tr>

                              <div class="form-group">
                                  <th><label for="input_cpass" class="col-sm-2 control-label">Confirm Password</label></th>

                                   <td><input type="password" class="form-control" name="input_cpass" placeholder="Confirm Password" required></td>

                              </div>
                              </tr>
                              <tr>

                              <td><div class="form-group form-group-lg">
                                  <div class="col-sm-offset-2 col-sm-10">
                                   <button type="submit" class="btn btn-lg btn-primary btn-block">Create Account</button>
                                  </div>
                              </div></td>
                              <td></td>
                              </tr>

                              </table>
                             </form>
                         </div>

                        <p>&nbsp;</p>




                    </div>
                    <p>&nbsp;</p>


      </article><!-- end of styles article -->
          <div class="spacer"></div>

     </section>
```

```
<?php include 'view/footer_dash.php';
	}else{
		$app->redirect('../../error');
	}


	}else{

		$app->redirect('../../error');

}


?>
```

Appendix – deposit.php

```
<?php
$app = Slim\Slim::getInstance();
if(isset($_SESSION['role']))
{

	if($_SESSION['role'] != 1){

		if($_SESSION['user_id'] != $user['account_no'] )
		{

			$app->redirect('../../error');

		}
	}

 $pagename = "Deposit";
 include 'view/header_dash.php';
 ?>
<!doctype html>
<body>

	<header id="header">
		<hgroup>
			<h1 class="site_title">Bank of Rory - <a
href="../../dashboard/user/<?php echo($user['account_no']);?>">Dashboard</a></h1>
```

```
            <h2 class="section_title">&nbsp;</h2><div class="btn_view_site"><a
href="../../dashboard/user_details/<?php echo($user['account_no']);?>"><?php echo
$_SESSION['fname'].' '.$_SESSION['lname']?></a></div>
   </h2><div class="btn_view_site"><a href="../../logout">Log Out</a></div>
        </hgroup>
    </header> <!-- end of header bar -->

    <section id="secondary_bar">
        <div class="user">
        </div>
        <div class="breadcrumbs_container">
            <article class="breadcrumbs"><a href="../../dashboard/user/<?php
echo($user['account_no']);?>">Dashboard</a><div class="breadcrumb_divider"></div> <a
href="../../dashboard/user_deposit/<?php echo($user['account_no']);?>"
class="current">Deposit</a> </article>
        </div>
    </section><!-- end of secondary bar -->
    <?php  require 'view/side_bar.php';?>


    <section id="main" class="column">



     <div class="clear"></div><!-- end of post new article -->

        <article class="module width_full">
          <header><h3>Deposit Money</h3></header>
                <div class="module_content">
                    <h1>Deposit</h1>
                    <p>Please enter an amount to deposit.</p>
                    <p>Current Balance: <strong>&euro; <?php echo
$user['balance'];?></strong></p>
                <?php if (isset($myerror)) { ?>
                        <div class="alert alert-danger" role="alert">
                                <p class="alert-link
error_message">Error: <?php echo $myerror['error'];?> </p>
                        </div>
     <?php }  ?>
                <?php if (isset($finish)) { ?>
       <div  class="alert alert-success" role="alert">
          <p class="alert-link error_message"><?php echo $finish['message'];?></p>
       </div>
```

```
                                       <p><--- Back to <a
href="../../dashboard/user/<?php echo($user['account_no']);?>">Dashboard</a></p>

        <?php } else{  ?>

                          <form class="form-horizontal" role="form"  method="POST"
action="../../dashboard/deposit/<?php echo($user['account_no']);?>">
                                 <input type="hidden" name="_METHOD"
value="PUT"/>
                            <table class="view_table">
                            <tr>
                           <div class="form-group">
                                 <th><label for="input_dep" class="col-sm-2 control-
label">Deposit Amount</label></th>
                                 <td>&euro; <input type="text" class="form-control"
name="input_dep" placeholder="Deposit Amount" required autofocus></td>
                           </div>
                           </tr>
                            <tr>
                                 <td>
                           <div class="form-group">
                                 <div class="col-sm-offset-2 col-sm-10">
                                  <button type="submit" class="btn btn-lg btn-primary
btn-block">Deposit Money</button>
                                 </div>
                           </div>
                           </td>
                          <td></td>
                            </tr>
                           </table>
      </form>
                    <?php } ?>

    </div>
    <p>&nbsp;</p>
                                 <h3>Quick Links <a
href="../../dashboard/user_deposit/<?php echo($user['account_no']);?>">Deposit
Money</a>&nbsp;&nbsp;
                                 <a href="../../dashboard/user_withdrawal/<?php
echo($user['account_no']);?>">Withdraw Money</a>&nbsp;&nbsp;
                                 <a href="../../dashboard/user_history/<?php
echo($user['account_no']);?>">Account History</a> </h3>
```

```
                                        </div>
            </article><!-- end of styles article -->
                        <div class="spacer"></div>

          </section>

<?php include 'view/footer_dash.php';

}else{

                        $app->redirect('../../error');

}


?>
```

Appendix – error.php

```
<?php $pagename = "Error";
 include 'view/header.php';
 ?>
   <!-- Fixed navbar -->
    <div class="navbar navbar-default navbar-fixed-top" role="navigation">
      <div class="container">
        <div class="navbar-header">
          <button type="button" class="navbar-toggle collapsed" data-toggle="collapse" data-
target=".navbar-collapse">
            <span class="sr-only">Toggle navigation</span>
            <span class="icon-bar"></span>
            <span class="icon-bar"></span>
            <span class="icon-bar"></span>
          </button>
          <a class="navbar-brand" href="./"><img src="images/icon.png" alt="Bank of Rory
Logo" align="middle">&nbsp;Bank of Rory</a>
        </div>
        <div class="navbar-collapse collapse">
          <ul class="nav navbar-nav">
            <li><a href="./">Home</a></li>
            <li><a href="./about">About</a></li>
          </ul>
          <ul class="nav navbar-nav navbar-right">
            <li class="active"><a href="./login">Log in</a></li>
      <li><a href="./signup">Sign Up</a></li>
     </ul>
    </div><!--/.nav-collapse -->
   </div>
  </div>

  <div class="container">

   <!-- Main component for a primary marketing message or call to action -->
   <div class="jumbotron">
             <div id="report">
                    <?php if (isset($myerror)) { ?>
                                       <div class="alert alert-danger" role="alert">
                                                    <p class="alert-link
error_message">Error: <?php echo $myerror['error'];?> </p>
                                       </div>
      <p><a href="./login" style="color:white;"><-- Click here to Log in</a></p>
                     <?php }  ?>

             </div>
       </div> <!-- /container -->
<?php
  include 'view/footer.php';
?>
```

Appendix – login.php

```
<?php $pagename = "Log In";
 include 'view/header.php';

 ?>

  <!-- Fixed navbar -->
  <div class="navbar navbar-default navbar-fixed-top" role="navigation">
   <div class="container">
    <div class="navbar-header">
     <button type="button" class="navbar-toggle collapsed" data-toggle="collapse" data-
target=".navbar-collapse">
      <span class="sr-only">Toggle navigation</span>
      <span class="icon-bar"></span>
      <span class="icon-bar"></span>
      <span class="icon-bar"></span>
     </button>
     <a class="navbar-brand" href="./"><img src="images/icon.png" alt="Bank of Rory
Logo" align="middle">&nbsp;Bank of Rory</a>
    </div>
    <div class="navbar-collapse collapse">
     <ul class="nav navbar-nav">
      <li><a href="./">Home</a></li>
      <li><a href="./about">About</a></li>
     </ul>
     <ul class="nav navbar-nav navbar-right">
      <li class="active"><a href="./login">Log in</a></li>
      <li><a href="./signup">Sign Up</a></li>
     </ul>
    </div><!--/.nav-collapse -->
   </div>
  </div>

  <div class="container">

   <!-- Main component for a primary marketing message or call to action -->
   <div class="jumbotron">
        <p>&nbsp;</p>
    <div id="headingWhite"><img src="images/borlogo.png" alt="Bank of Rory Logo"
align="middle">&nbsp;Bank of Rory</div>
    <p>&nbsp;</p>
    <p id="centertext">Please login to view your account information.</p>

    <form class="form-signin" method="POST" action="./login" >

          <?php if (isset($finish)) { ?>
            <div  class="alert alert-success" role="alert">
              <p class="alert-link error_message"><?php echo $finish['message'];?></p>
            </div>
          <?php }  ?>
         <input type="email" class="form-control" name="username"
placeholder="Username" required autofocus>
         <br/>
         <input type="password" class="form-control" name="password"
placeholder="Password" required>
                                 <?php if (isset($myerror)) { ?>
                                       <div class="alert alert-danger" role="alert">
                                                    <p class="alert-link
error_message">Error: <?php echo $myerror['error'];?> </p>
                                       </div>
          <?php }  ?>
```

```
                 <button class="btn btn-lg btn-primary btn-block" id="button_green"
type="submit">Sign in</button>
                 <div id="reglink">
                   <p><a href="./signup" style="color:white;">Register Now</a></p>
                 </div>
         </form>
<p>
      <img src="images/bank-icon.png" alt="bank" width="138" height="138" align="right">
      </p>
      </div>

      </div>

    </div> <!-- /container -->
             <?php include 'view/footer.php'; ?>
```

Appendix – login.php

```
<?php $pagename = "Log In";
 include 'view/header.php';

 ?>

   <!-- Fixed navbar -->
    <div class="navbar navbar-default navbar-fixed-top" role="navigation">
      <div class="container">
        <div class="navbar-header">
          <button type="button" class="navbar-toggle collapsed" data-toggle="collapse" data-
target=".navbar-collapse">
            <span class="sr-only">Toggle navigation</span>
            <span class="icon-bar"></span>
            <span class="icon-bar"></span>
            <span class="icon-bar"></span>
          </button>
          <a class="navbar-brand" href="./"><img src="images/icon.png" alt="Bank of Rory
Logo" align="middle">&nbsp;Bank of Rory</a>
        </div>
        <div class="navbar-collapse collapse">
          <ul class="nav navbar-nav">
            <li><a href="./">Home</a></li>
            <li><a href="./about">About</a></li>
          </ul>
          <ul class="nav navbar-nav navbar-right">
            <li class="active"><a href="./login">Log in</a></li>
            <li><a href="./signup">Sign Up</a></li>
          </ul>
        </div><!--/.nav-collapse -->
      </div>
    </div>

    <div class="container">

      <!-- Main component for a primary marketing message or call to action -->
      <div class="jumbotron">
           <p>&nbsp;</p>
        <div id="headingWhite"><img src="images/borlogo.png" alt="Bank of Rory Logo"
align="middle">&nbsp;Bank of Rory</div>
        <p>&nbsp;</p>
        <p id="centertext">Please login to view your account information.</p>

        <form class="form-signin" method="POST" action="./login" >

              <?php if (isset($finish)) { ?>
                <div  class="alert alert-success" role="alert">
                   <p class="alert-link error_message"><?php echo $finish['message'];?></p>
                </div>
              <?php }  ?>
             <input type="email" class="form-control" name="username"
placeholder="Username" required autofocus>
             <br/>
             <input type="password" class="form-control" name="password"
placeholder="Password" required>
                                        <?php if (isset($myerror)) { ?>
                                                <div class="alert alert-danger" role="alert">
                                                        <p class="alert-link
error_message">Error: <?php echo $myerror['error'];?> </p>
                                                </div>
              <?php }  ?>
             <button class="btn btn-lg btn-primary btn-block" id="button_green"
type="submit">Sign in</button>
             <div id="reglink">
              <p><a href="./signup" style="color:white;">Register Now</a></p>
             </div>
         </form>
<p>
      <img src="images/bank-icon.png" alt="bank" width="138" height="138" align="right">
      </p>
```

```
      </div>

      </div>



    </div> <!-- /container -->
         <?php include 'view/footer.php'; ?>
```

Appendix – main.php

```
<?php $pagename = "Home"; ?>
<?php include 'view/header.php'; ?>

   <!-- Fixed navbar -->
    <div class="navbar navbar-default navbar-fixed-top" role="navigation">
      <div class="container">
        <div class="navbar-header">
          <button type="button" class="navbar-toggle collapsed" data-toggle="collapse" data-target=".navbar-collapse">
            <span class="sr-only">Toggle navigation</span>
            <span class="icon-bar"></span>
            <span class="icon-bar"></span>
            <span class="icon-bar"></span>
          </button>
          <a class="navbar-brand" href="./"><img src="images/icon.png" alt="Bank of Rory Logo" align="middle">&nbsp;Bank of Rory</a>
        </div>
        <div class="navbar-collapse collapse">
          <ul class="nav navbar-nav">
            <li class="active"><a href="./">Home</a></li>
            <li><a href="./about">About</a></li>
          </ul>
          <ul class="nav navbar-nav navbar-right">
            <li><a href="./login">Log in</a></li>
            <li><a href="./signup">Sign Up</a></li>
          </ul>
        </div><!--/.nav-collapse -->
      </div>
    </div>

    <div class="container">
   <!-- Main component for a primary marketing message or call to action -->
   <div class="jumbotron">
        <p>&nbsp;</p>
    <div id="headingWhite"><img src="images/borlogo.png" alt="Bank of Rory Logo" 
align="middle">&nbsp; Welcome To The Bank of Rory</div>
    <p>The Bank of Rory bank is a well-established online bank since 2014. We have lots of 
happy customers. They are happy to bank with us for many different reasons. Mainly 
because we care about or customers.</p>
                  <p>Bank with us now with Bank of Rory. You can take that to the back.</p>
    <p>&nbsp;</p>
       <p>
   <a class="btn btn-lg btn-primary" id="bag" href="./signup" role="button">Sign Up Now 
&raquo;</a><img src="images/bank-icon.png" alt="bank" width="138" height="138" 
align="right">
   </p>
   </div>

   </div>



  </div> <!-- /container -->
<?php include 'view/footer.php'; ?>
```

Appendix – open_ticket.php

```
<?php
// Used to Keep unregestered users out of the backend
// also used to keep the user in their own section

$app = Slim\Slim::getInstance();
if(isset($_SESSION['role']))
{

        if($_SESSION['role'] != 1){

                if($_SESSION['user_id'] != $user['account_no'] )
                {

                        $app->redirect('../../error');

                }
```

```
	}

 $pagename = "Help Desk - Open Ticket";
 include 'view/header_dash.php';
 ?>
<!doctype html>
<body>

	<header id="header">
		<hgroup>
			<h1 class="site_title">Bank of Rory - <a
href="../../dashboard/user/<?php echo($user['account_no']);?>">Dashboard</a></h1>
			<h2 class="section_title">&nbsp;</h2><div class="btn_view_site"><a
href="../../dashboard/user_details/<?php echo($user['account_no']);?>"><?php echo
$_SESSION['fname'].' '.$_SESSION['lname']?></a></div>
	</h2><div class="btn_view_site"><a href="../../logout">Log Out</a></div>
		</hgroup>
	</header> <!-- end of header bar -->

	<section id="secondary_bar">
		<div class="user">
		</div>
		<div class="breadcrumbs_container">
			<article class="breadcrumbs"><a href="../../dashboard/user/<?php
echo($user['account_no']);?>">Dashboard</a><div class="breadcrumb_divider"></div> <a
href="../../dashboard/open_ticket/<?php echo($user['account_no']);?>"
class="current">Help Desk - Open Ticket</a> </article>
		</div>
	</section><!-- end of secondary bar -->
	<?php  require 'view/side_bar.php';?>


	<section id="main" class="column">



	  <div class="clear"></div><!-- end of post new article -->

		<article class="module width_full">
		  <header><h3>Help Desk - Open Ticket</h3></header>
				<div class="module_content">
					<h1>Help Desk - Open Ticket</h1>
```

```
                              <?php if (isset($myerror)) { ?>
                                        <div class="alert alert-danger" role="alert">
                                                  <p class="alert-link
error_message">Error: <?php echo $myerror['error'];?> </p>
                                        </div>
      <?php }  ?>
                              <?php if (isset($finish)) { ?>
         <div  class="alert alert-success" role="alert">
           <p class="alert-link error_message"><?php echo $finish['message'];?></p>
         </div>
                                        <p><--- Click here to <a
href="../../dashboard/view_ticket/<?php echo($user['account_no']);?>">View Open
Tickets</a></p>

      <?php } else{  ?>
                              <p>To send a support ticket to our help desk please enter the
relevent information in to the form below and press send.<br/>
                                   We will get back to you as soon as we can.</p>

                              <form class="form-horizontal" role="form"  method="POST"
action="../../dashboard/open_ticket/<?php echo($user['account_no']);?>">



                                   <input type="hidden" name="fname" value="<?php
echo $user['first_name'];?>"/>
                                   <input type="hidden" name="lname" value="<?php
echo $user['last_name'];?>"/>
                                   <input type="hidden" name="account_num"
value="<?php echo $user['id'];?>"/>
                               <table class="view_table">
                               <tr>
                               <div class="form-group">
                                   <th><label for="message" class="col-sm-2 control-
label">Message for the Help Desk</label></th>
                                   <td><textarea cols="40" rows="5" name="message"
placeholder="Please enter a message" required autofocus></textarea></td>
                               </div>
                               </tr>
                               <tr>
                               <td><p>&nbsp;</p></td>
                               <td><p>&nbsp;</p></td>

                               </tr>
                               <tr>
```

```
          <td><label for="priority" class="col-sm-2 control-label">Please choose how Urgent your ticket is</label></td>
          <td><select name="priority">
                        <option value="Low" selected>Low</option>
                        <option value="Medium">Medium</option>
                        <option value="High">High</option>
                 </select></td>

          </tr>
          <tr>
          <td><p>&nbsp;</p></td>
          <td><p>&nbsp;</p></td>

          </tr>
          <tr>
          <td><label for="area" class="col-sm-2 control-label">Please choose an area that your ticket applys to</label></td>
          <td><select name="area">
                        <option value="Profile" selected>Profile</option>
                        <option value="Withdrawal">Withdrawal</option>
                        <option value="Deposit">Depopsit</option>
                 </select></td>

          </tr>
           <tr>
           <tr>
          <td><p>&nbsp;</p></td>
          <td><p>&nbsp;</p></td>

          </tr>
           <tr>
              <td>
          <div class="form-group">
              <div class="col-sm-offset-2 col-sm-10">
                <button type="submit" class="btn btn-lg btn-primary btn-block">Post Ticket</button>
              </div>
          </div>
```

```
                                        </td>
                                       <td></td>
                                         </tr>
                                        </table>
        </form>
                              <?php } ?>

      </div>
      <p>&nbsp;</p>
                                                     <h3>Quick Links <a
href="../../dashboard/user_deposit/<?php echo($user['account_no']);?>">Deposit
Money</a>&nbsp;&nbsp;
                                                     <a href="../../dashboard/user_withdrawal/<?php
echo($user['account_no']);?>">Withdraw Money</a>&nbsp;&nbsp;
                                                     <a href="../../dashboard/user_history/<?php
echo($user['account_no']);?>">Account History</a> </h3>


                                       </div>
          </article><!-- end of styles article -->
                   <div class="spacer"></div>

         </section>

<?php include 'view/footer_dash.php';

}else{

                   $app->redirect('../../error');

}


?>
```

Appendix – reply_ticket.php

```
<?php
$app = Slim\Slim::getInstance();
if(isset($_SESSION['role']))
{

         if($_SESSION['role'] == 1 || $_SESSION['role'] == 2){
```

```
 $pagename = "Help Desk - Reply To A Ticket";
 include 'view/header_dash.php';
 ?>
<!doctype html>
<body>
	<script>
		function fullMessage(data) {
			alert(data);
		};
	</script>
		<header id="header">
			<hgroup>
				<h1 class="site_title">Bank of Rory - <a
href="../../dashboard/admin/<?php echo($_SESSION['user_id']);?>">Dashboard</a></h1>
				<h2 class="section_title">&nbsp;</h2><div
class="btn_view_site"><a href="../../dashboard/user_details/<?php echo
$_SESSION['user_id'];?>"><?php echo $_SESSION['fname'].'
'.$_SESSION['lname']?></a></div>
				</h2><div class="btn_view_site"><a href="../../logout">Log
Out</a></div>
			</hgroup>
		</header> <!-- end of header bar -->

		<section id="secondary_bar">
			<div class="user">
			</div>
			<div class="breadcrumbs_container">
				<article class="breadcrumbs"><a
href="../../dashboard/admin/<?php echo $_SESSION['user_id'];?>">Dashboard</a><div
class="breadcrumb_divider"></div> <a href="../../dashboard/ticket_reply/<?php echo
$_SESSION['user_id'];?>" class="current">Help Desk - Reply To A Ticket</a> </article>
</article>
			</div>
		</section><!-- end of secondary bar -->


	<?php  require 'view/side_bar.php';?>


	<section id="main" class="column">
```

```
        <div class="clear"></div><!-- end of post new article -->

              <article class="module width_full">
               <header><h3>Ticket Details</h3></header>
                             <div class="module_content">
                                     <h1>Ticket Details</h1>

                                     <p>Shown below are the individual ticket details.</p>
                                     <?php if (!isset($reply)) { ?>
                                                     <div class="alert alert-danger"
role="alert">
                                                                     <p class="alert-link
error_message">Incorrect Ticket ID </p>
                                                     </div>
                                     <?php } else{  ?>
                                             <table class="view_table">

                                                     <tr>
                                                             <td><p><strong>Account
Number:</strong></p></td><td><?php echo $reply['account_num']; ?></td>
                                                     </tr>
                                                     <tr>
                                                             <td><p><strong>Ticket
Date:</strong></p></td><td><?php echo date('Y-m-d', $reply['ts']->sec); ?></td>
                                                     </tr>
                                                     <tr>

        <td><p><strong>Message:</strong></p></td><td> <?php echo
substr($reply['message'], 0, 20).'...'; ?> <button onclick="fullMessage('<?php echo
$reply['message']; ?>')">Read More</button></td>
                                                     </tr>
                                                     <tr>

        <td><p><strong>Area:</strong></p></td><td> <?php echo $reply['area']; ?></td>
                                                     </tr>
                                                     <tr>

        <td><p><strong>Priority:</strong></p></td><td>  <?php echo $reply['priority'];
?></td>
                                                     </tr>

        <tr><td><p><strong>Status:</strong></p></td><td>
```

```
                                                            <?php if($reply['status'] == 'Open'){

        echo '<p id="status_open">'.$reply['status'].'</p>';

        }else if($reply['status'] == 'Review'){

        echo '<p id="status_review">'.$reply['status'].'</p>';

        }else{

        echo '<p id="status_closed">'.$reply['status'].'</p>';
                                                                                          }?>
                                                                    </td>
                                                            </tr>


                                                    </table>

                                            <?php }?>

                                    </div>


    <p>&nbsp;</p>


        </article><!-- end of styles article -->
                <div class="spacer"></div>
                <article class="module width_full">
                  <header><h3>Update Statuse</h3></header>
                                <div class="module_content">
                                        <h1>Update Status To Review</h1>

                                        <p>If you are going to work on a ticket please change
the status to review.</p>
                                        <p>By doing this you are letting the customer know
that their ticket is being worked on.</p>
                                        <?php if (isset($myerror)) { ?>
                                                <div class="alert alert-danger" role="alert">
                                                                <p class="alert-link
error_message">Error: <?php echo $myerror['error'];?> </p>
                                                </div>
                                        <?php }  ?>
```

```
                                         <form action="../../dashboard/change_status/<?php
echo $_SESSION['user_id'];?>" method="POST">
                                                                 <input type="hidden"
name="ticket_id" value="<?php echo $reply['_id'];?>"/>
                                                                 <p>Change status to Reiew:
&nbsp;&nbsp;<input type="submit" value="Change" /></p>
                                         </form>



                                 </div>



     <p>&nbsp;</p>
         </article><!-- end of styles article -->
         <div class="spacer"></div>
         <article class="module width_full">
                  <header><h3>Reply To A Ticket</h3></header>
                                 <div class="module_content">
                                         <h1>Reply To A Ticket</h1>

                                         <p>Please enter in the message you would like to reply
with below</p>
                                         <p>By replying to this message you will automatically
close the ticket. <em>Tickets can not be reopened!!</em></p>
                                         <?php if (isset($myerror_reply)) { ?>
                                                 <div class="alert alert-danger" role="alert">
                                                                 <p class="alert-link
error_message">Error: <?php echo $myerror_reply['error'];?> </p>
                                                 </div>
                                         <?php }  ?>
                                         <form class="form-horizontal" role="form"
method="POST" action="../../dashboard/post_reply/<?php echo($user['account_no']);?>">



                                         <input type="hidden" name="ticket_id" value="<?php
echo $reply['_id'];?>"/>
                                   <table class="view_table">
                                   <tr>
                                  <div class="form-group">
                                         <th><label for="message" class="col-sm-2 control-
label">Message form the Help Desk</label></th>
                                         <td><textarea cols="40" rows="5" name="message"
placeholder="Please enter a message" required></textarea></td>
                                  </div>
```

```
                                          </tr>


                                           <tr>
                                                  <td>
                                          <div class="form-group">
                                                  <div class="col-sm-offset-2 col-sm-10">
                                                    <button type="submit" class="btn btn-lg btn-primary
btn-block">Reply To Ticket</button>
                                                  </div>
                                          </div>
                                          </td>
                                        <td></td>
                                           </tr>
                                          </table>
         </form>


                                        </div>


      <p>&nbsp;</p>


             </article><!-- end of styles article -->
          <div class="spacer"></div>
          </section>

<?php include 'view/footer_dash.php';
          }else{
                    $app->redirect('../../error');
          }


}else{

                    $app->redirect('../../error');

}
```

Appendix – report_dep_day.php

```
<?php
```

```
$app = Slim\Slim::getInstance();
if(isset($_SESSION['role']))
{
        if($_SESSION['role'] == 1){


 $pagename = "Reports - View Deposits By Day";
 include 'view/header_dash.php';
 ?>
<!doctype html>
<body>
                <header id="header">
                        <hgroup>
                                <h1 class="site_title">Bank of Rory - <a
href="../../dashboard/admin/<?php echo($_SESSION['user_id']);?>">Dashboard</a></h1>
                                <h2 class="section_title">&nbsp;</h2><div
class="btn_view_site"><a href="../../dashboard/user_details/<?php echo
$_SESSION['user_id'];?>"><?php echo $_SESSION['fname'].'
'.$_SESSION['lname']?></a></div>
                                </h2><div class="btn_view_site"><a href="../../logout">Log
Out</a></div>
                        </hgroup>
                </header> <!-- end of header bar -->

                <section id="secondary_bar">
                        <div class="user">
                        </div>
                        <div class="breadcrumbs_container">
                                <article class="breadcrumbs"><a
href="../../dashboard/admin/<?php echo $_SESSION['user_id'];?>">Dashboard</a><div
class="breadcrumb_divider"></div> <a href="../../dashboard/deposits_by_day/<?php echo
$_SESSION['user_id'];?>" class="current">Reports - View Deposits By Day</a> </article>
</article>
                        </div>
                </section><!-- end of secondary bar -->

        <?php  require 'view/side_bar.php';?>
        <section id="main" class="column">

          <div class="clear"></div><!-- end of post new article -->

                <article class="module width_full">
                  <header><h3>Reports - View Deposits By Day</h3></header>
                                <div class="module_content">
```

```
                    <h1>Reports - View Deposits By Day</h1>

                    <?php if (isset($deposit_days)) { ?>
                    <p>Please select form list the days deposits you would like to look at and press search</p>
                    <form class="form-horizontal" role="form" method="POST" action="../../dashboard/deposits_by_day/<?php echo($user['account_no']);?>">

                         <table class="view_table">

                         <tr>
                        <div class="form-group">
                            <th><label for="input_date" class="col-sm-2 control-label">Available Dates</label></th>
                            <td><select name="input_date">

                            <?php foreach ($deposit_days as $day) : ?>


                                <?php if( date("Y-m-d") == $day['dates'] ){ ?>
                                    <option value="<?php echo $day['dates'];?>" selected><?php echo $day['dates'];?></option>
                                 <?php }else{?>
                                    <option value="<?php echo $day['dates'];?>"><?php echo $day['dates'];?></option>
                            <?php } endforeach; ?>
                            </select></td>

                        </div>
                        </tr>

                         <tr>
                            <td>
                        <div class="form-group">
                            <div class="col-sm-offset-2 col-sm-10">
                              <button type="submit" class="btn btn-lg btn-primary btn-block">Search</button>
                            </div>
                        </div>
                        </td>
                       <td></td>
                         </tr>
                         </table>
                    </form>
                    <?php } ?>
                     <?php if (isset($deposits)) { ?>
                     <p>Below is a list of deposits on your selected
days</p>
                        <table id="data_table" class="display">
                            <thead>
                                <tr>
                                    <th>A/C Id</th>
                                    <th>Name</th>
                                    <th>Transaction Id</th>
                                    <th>Transaction
Date/Time</th>
                                    <th>Transaction
Type</th>
                                    <th>Transaction
Amount</th>
                                </tr>
                            </thead>
                            <tbody>
                                <?php foreach ($deposits as
$deposit) : ?>
                                    <tr>
                                        <td><?php echo
$deposit['id']; ?></td>
                                        <td><?php echo
$deposit['first_name'].' '.$deposit['last_name'];?></td>
                                        <td><?php echo
$deposit['transaction_id']; ?></td>
                                        <td><?php echo
$deposit['transactions_time']; ?></td>
                                        <td><?php echo
$deposit['transaction_type']; ?></td>

    <td>&euro;&nbsp;<?php echo $deposit['transaction_amount']; ?></td>
                                    </tr>
                                <?php endforeach; ?>
                            </tbody>
                        </table>
                        <p>&nbsp;</p>
                        <h4>Total Deposits on
                        <?php echo
substr($deposit['transactions_time'], 0, -9).' are &nbsp;&nbsp;';
```

```
                                                            $total_deposits = 0;
                                                            foreach ($deposits as $deposit) :
                                                                    $total_deposits =
$total_deposits + $deposit['transaction_amount'];
                                                            endforeach;
                                                            echo
'<strong>&euro;&nbsp;&nbsp;'.number_format($total_deposits, 2, '.', '').'</strong>';

                                                            ?>

                                                    </h4>
                                                    <p>&nbsp;</p>
                                                    <p><a
href="../../dashboard/deposits_by_day/<?php echo $_SESSION['user_id'];?>">Click here to
make another search.</a></p>
                                            <?php } ?>






                                <div>
                                <p>&nbsp;</p>



        </article><!-- end of styles article -->
                <div class="spacer"></div>

        </section>

<?php include 'view/footer_dash.php';
        }else{
                $app->redirect('../../error');
        }



        }else{


                $app->redirect('../../error');

}



?>
```

Appendix – report_ticket.php

```
<?php
$app = Slim\Slim::getInstance();
if(isset($_SESSION['role']))
{
        if($_SESSION['role'] == 1){


 $pagename = "Reports - Customer Tickets";
 include 'view/header_dash.php';
 ?>
<!doctype html>
<body>
                <header id="header">
                        <hgroup>
                                <h1 class="site_title">Bank of Rory - <a
href="../../dashboard/admin/<?php echo($_SESSION['user_id']);?>">Dashboard</a></h1>
                                <h2 class="section_title">&nbsp;</h2><div
class="btn_view_site"><a href="../../dashboard/user_details/<?php echo
$_SESSION['user_id'];?>"><?php echo $_SESSION['fname'].'
'.$_SESSION['lname']?></a></div>
                                </h2><div class="btn_view_site"><a href="../../logout">Log
Out</a></div>
                        </hgroup>
                </header> <!-- end of header bar -->

                <section id="secondary_bar">
                        <div class="user">
                        </div>
                        <div class="breadcrumbs_container">
                                <article class="breadcrumbs"><a
href="../../dashboard/admin/<?php echo $_SESSION['user_id'];?>">Dashboard</a><div
class="breadcrumb_divider"></div> <a href="../../dashboard/customer_tickets/<?php echo
$_SESSION['user_id'];?>" class="current">Reports - Customer Tickets</a> </article>
</article>
                        </div>
                </section><!-- end of secondary bar -->

        <?php  require 'view/side_bar.php';?>
        <section id="main" class="column">
```

```
    <div class="clear"></div><!-- end of post new article -->

        <article class="module width_full">
         <header><h3>Reports - Customer Tickets</h3></header>
                <div class="module_content">
                    <h1>Reports - Customer Tickets</h1>


                    <p>The report below shows a list of customes who
have tickets in the ticket system.<br/>
                    If an account number is missing then they do not have
any tickets in the ticket system.</p>

                     <p>&nbsp;</p>

                    <table id="data_table" class="display">
                        <thead>
                            <tr>
                                <th>A/C No.</th>
                                <th>Name</th>
                                <th>Country</th>
                                <th>A/C Type</th>
                                <th>No. of Tickets</th>

                            </tr>
                        </thead>
                        <tbody>
                            <?php foreach ($ticket_info as $ticket) :
?>
                                <tr>
                                    <td><?php echo
$ticket['id']; ?></td>
                                    <td><?php echo
$ticket['first_name'];?> <?php echo $ticket['last_name'];?></td>
                                    <td><?php echo
$ticket['country']; ?></td>
                                    <td><?php

                                        if($ticket['type']
== 'Current'){
                                            echo "<p
id=\"account_current\">Current Account</p>";
                                        }else{
```

```
                                                                                                    echo "<p
id=\"account_student\">Student Account</p>";
                                                                                        }
                                                                                ?>

                                                                                </td>
                                                                                <td><?php echo
$ticket['tickets']; ?></td>
                                                                        </tr>
                                                                <?php endforeach; ?>
                                                        </tbody>
                                                </table>







                                        </div>
                                        <p>&nbsp;</p>


                </article><!-- end of styles article -->
                        <div class="spacer"></div>

        </section>

<?php include 'view/footer_dash.php';
        }else{
                $app->redirect('../../error');
        }


        }else{

                $app->redirect('../../error');

}


?>
```

Appendix – report_top_bal.php

```
<?php
$app = Slim\Slim::getInstance();
if(isset($_SESSION['role']))
{
        if($_SESSION['role'] == 1){


 $pagename = "Reports - Top Balances";
 include 'view/header_dash.php';
 ?>
<!doctype html>
<body>
                <header id="header">
                        <hgroup>
                                <h1 class="site_title">Bank of Rory - <a
href="../../dashboard/admin/<?php echo($_SESSION['user_id']);?>">Dashboard</a></h1>
                                <h2 class="section_title">&nbsp;</h2><div
class="btn_view_site"><a href="../../dashboard/user_details/<?php echo
$_SESSION['user_id'];?>"><?php echo $_SESSION['fname'].'
'.$_SESSION['lname']?></a></div>
                                </h2><div class="btn_view_site"><a href="../../logout">Log
Out</a></div>
                        </hgroup>
                </header> <!-- end of header bar -->

                <section id="secondary_bar">
                        <div class="user">
                        </div>
                        <div class="breadcrumbs_container">
                                <article class="breadcrumbs"><a
href="../../dashboard/admin/<?php echo $_SESSION['user_id'];?>">Dashboard</a><div
class="breadcrumb_divider"></div> <a href="../../dashboard/top_balances/<?php echo
$_SESSION['user_id'];?>" class="current">Reports - Top Balances</a> </article> </article>
                        </div>
                </section><!-- end of secondary bar -->

        <?php  require 'view/side_bar.php';?>
        <section id="main" class="column">

          <div class="clear"></div><!-- end of post new article -->
```

```
                    <article class="module width_full">
                      <header><h3>Reports - Top Balances</h3></header>
                                <div class="module_content">
                                        <h1>Reports - Top Balances</h1>


                                        <p>below is a list of all the top balance in the Bank Of
Rory</p>

                                        <table id="data_table" class="display">
                                                <thead>
                                                        <tr>
                                                                <th>A/C No</th>
                                                                <th>Name</th>
                                                                <th>Country</th>
                                                                <th>A/C Type</th>
                                                                <th>No. of Transactions</th>
                                                                <th>Balance</th>
                                                        </tr>
                                                </thead>
                                                <tbody>
                                                        <?php foreach ($balances as $bal) : ?>
                                                                <tr>
                                                                        <td><?php echo
$bal['id']; ?></td>
                                                                        <td><?php echo
$bal['first_name'].' '.$bal['last_name']; ?></td>
                                                                        <td><?php echo
$bal['country']; ?></td>
                                                                        <td><?php

                                                                                if($bal['type'] ==
'Current'){
                                                                                        echo "<p
id=\"account_current\">Current Account</p>";
                                                                                }else{
                                                                                        echo "<p
id=\"account_student\">Student Account</p>";
                                                                                }
                                                                        ?>

                                                                        </td>
                                                                        <td><?php echo
$bal['no_of_trans']; ?></td>
```

```
                                                                                <td>&euro; <?php echo
$bal['balance']; ?></td>
                                                                        </tr>
                                                                <?php endforeach; ?>
                                                        </tbody>
                                                </table>






                                        </div>
                                        <p>&nbsp;</p>


                </article><!-- end of styles article -->
                        <div class="spacer"></div>

        </section>

<?php include 'view/footer_dash.php';
        }else{
                $app->redirect('../../error');
        }


        }else{

                $app->redirect('../../error');

}



?>
```

Appendix – report_top_reg.php

```
<?php
$app = Slim\Slim::getInstance();
if(isset($_SESSION['role']))
{
        if($_SESSION['role'] == 1){
```

```
 $pagename = "Reports - Top Region";
 include 'view/header_dash.php';
 ?>
<!doctype html>
<body>
                    <header id="header">
                              <hgroup>
                                        <h1 class="site_title">Bank of Rory - <a
href="../../dashboard/admin/<?php echo($_SESSION['user_id']);?>">Dashboard</a></h1>
                                        <h2 class="section_title">&nbsp;</h2><div
class="btn_view_site"><a href="../../dashboard/user_details/<?php echo
$_SESSION['user_id'];?>"><?php echo $_SESSION['fname'].'
'.$_SESSION['lname']?></a></div>
                                        </h2><div class="btn_view_site"><a href="../../logout">Log
Out</a></div>
                              </hgroup>
                    </header> <!-- end of header bar -->

                    <section id="secondary_bar">
                              <div class="user">
                              </div>
                              <div class="breadcrumbs_container">
                                        <article class="breadcrumbs"><a
href="../../dashboard/admin/<?php echo $_SESSION['user_id'];?>">Dashboard</a><div
class="breadcrumb_divider"></div> <a href="../../dashboard/top_region/<?php echo
$_SESSION['user_id'];?>" class="current">Reports - Top Balances</a> </article> </article>
                              </div>
                    </section><!-- end of secondary bar -->

          <?php  require 'view/side_bar.php';?>
          <section id="main" class="column">

            <div class="clear"></div><!-- end of post new article -->

                    <article class="module width_full">
                      <header><h3>Reports - Top Region</h3></header>
                                        <div class="module_content">
                                                  <h1>Reports - Top Region</h1>


                                                  <p>below is a list of all countries with the combined
total balances of its customers and the amount<br/>
```

```
                                        of customers per each country</p>

                                        <table id="data_table" class="display">
                                              <thead>
                                                    <tr>
                                                          <th>Country Name</th>
                                                          <th>No. of Customers</th>
                                                          <th>Total Blances</th>
                                                          <th>No. of Transactions</th>
                                                    </tr>
                                              </thead>
                                              <tbody>
                                                    <?php foreach ($regions as $reg) : ?>
                                                          <tr>
                                                                <td><?php echo
$reg['country']; ?></td>
                                                                <td><?php echo
$reg['total_cust'];?></td>
                                                                <td>&euro;&nbsp;<?php
echo $reg['total_bal']; ?></td>
                                                                <td><?php echo
$reg['no_of_trans']; ?></td>
                                                          </tr>
                                                    <?php endforeach; ?>
                                              </tbody>
                                        </table>




                                  </div>
                                  <p>&nbsp;</p>


       </article><!-- end of styles article -->
             <div class="spacer"></div>

      </section>

<?php include 'view/footer_dash.php';
      }else{
            $app->redirect('../../error');
```

```
	}


	}else{

		$app->redirect('../../error');

}


?>
```

Appendix – report_with_day.php

```
<?php
$app = Slim\Slim::getInstance();
if(isset($_SESSION['role']))
{
	if($_SESSION['role'] == 1){


 $pagename = "Reports - View Withdrawals By Day";
 include 'view/header_dash.php';
 ?>
<!doctype html>
<body>
		<header id="header">
			<hgroup>
				<h1 class="site_title">Bank of Rory - <a
href="../../dashboard/admin/<?php echo($_SESSION['user_id']);?>">Dashboard</a></h1>
				<h2 class="section_title">&nbsp;</h2><div
class="btn_view_site"><a href="../../dashboard/user_details/<?php echo
$_SESSION['user_id'];?>"><?php echo $_SESSION['fname'].'
'.$_SESSION['lname']?></a></div>
				</h2><div class="btn_view_site"><a href="../../logout">Log
Out</a></div>
			</hgroup>
		</header> <!-- end of header bar -->

		<section id="secondary_bar">
			<div class="user">
			</div>
			<div class="breadcrumbs_container">
```

```
                <article class="breadcrumbs"><a
href="../../dashboard/admin/<?php echo $_SESSION['user_id'];?>">Dashboard</a><div
class="breadcrumb_divider"></div> <a href="../../dashboard/withdraw_by_day/<?php echo
$_SESSION['user_id'];?>" class="current">Reports - View Withdrawals By Day</a> </article>
</article>
            </div>
        </section><!-- end of secondary bar -->

    <?php  require 'view/side_bar.php';?>
    <section id="main" class="column">

     <div class="clear"></div><!-- end of post new article -->

        <article class="module width_full">
          <header><h3>Reports - View Withdrawals By Day</h3></header>
                <div class="module_content">
                    <h1>Reports - View Withdrawals By Day</h1>

                    <?php if (isset($withdraw_days)) { ?>
                    <p>Please select form list the days Withdrawals you
would like to look at and press search</p>
                    <form class="form-horizontal" role="form"
method="POST" action="../../dashboard/withdraw_by_day/<?php
echo($user['account_no']);?>">

                         <table class="view_table">

                         <tr>
                        <div class="form-group">
                            <th><label for="input_date" class="col-
sm-2 control-label">Available Dates</label></th>
                            <td><select name="input_date">

                            <?php foreach ($withdraw_days as
$with_day) : ?>

                                <?php if( date("Y-m-d") ==
$with_day['dates'] ){ ?>
                                    <option value="<?php
echo $with_day['dates'];?>" selected><?php echo $with_day['dates'];?></option>
                                 <?php }else{?>
                                    <option value="<?php
echo $with_day['dates'];?>"><?php echo $with_day['dates'];?></option>
                            <?php } endforeach; ?>
```

```
                                        </select></td>

                                    </div>
                                    </tr>

                                     <tr>
                                        <td>
                                    <div class="form-group">
                                        <div class="col-sm-offset-2 col-sm-10">
                                          <button type="submit" class="btn btn-lg btn-primary btn-block">Search</button>
                                        </div>
                                    </div>
                                    </td>
                                   <td></td>
                                     </tr>
                                    </table>
                              </form>
                              <?php } ?>
                               <?php if (isset($withdrawls)) { ?>
                               <p>Below is a list of withdrawls on your selected days</p>
                                   <table id="data_table" class="display">
                                        <thead>
                                            <tr>
                                                <th>A/C Id</th>
                                                <th>Name</th>
                                                <th>Transaction Id</th>
                                                <th>Transaction Date/Time</th>
                                                <th>Transaction Type</th>
                                                <th>Transaction Amount</th>
                                            </tr>
                                        </thead>
                                        <tbody>
                                            <?php foreach ($withdrawls as $withdrawl) : ?>
                                                <tr>
                                                    <td><?php echo $withdrawl['id']; ?></td>
                                                    <td><?php echo $withdrawl['first_name'].' '.$withdrawl['last_name'];?></td>
```

```
                                                                                    <td><?php echo
$withdrawl['transaction_id']; ?></td>
                                                                                    <td><?php echo
$withdrawl['transactions_time']; ?></td>
                                                                                    <td><?php echo
$withdrawl['transaction_type']; ?></td>

        <td>&euro;&nbsp;<?php echo $withdrawl['transaction_amount']; ?></td>
                                                                            </tr>
                                                                    <?php endforeach; ?>
                                                            </tbody>
                                                    </table>
                                                    <p>&nbsp;</p>
                                                    <h4>Total Withdrawls on
                                                    <?php echo
substr($withdrawl['transactions_time'], 0, -9).' are &nbsp;&nbsp;';
                                                            $total_withdrawls = 0;
                                                            foreach ($withdrawls as $withdrawl) :
                                                                    $total_withdrawls =
$total_withdrawls + $withdrawl['transaction_amount'];
                                                            endforeach;
                                                            echo
'<strong>&euro;&nbsp;&nbsp;'.number_format($total_withdrawls, 2, '.', '').'</strong>';

                                                            ?>

                                                    </h4>
                                                    <p>&nbsp;</p>
                                                    <p><a
href="../../dashboard/deposits_by_day/<?php echo $_SESSION['user_id'];?>">Click here to
make another search.</a></p>
                                            <?php } ?>





                                    </div>
                                    <p>&nbsp;</p>


        </article><!-- end of styles article -->
                <div class="spacer"></div>
```

```
		</section>

<?php include 'view/footer_dash.php';
		}else{
				$app->redirect('../../error');
		}


		}else{

				$app->redirect('../../error');

}


?>
```

Appendix – signup.php

```
<?php $pagename = "Sign Up"; ?>
<?php include 'view/header.php'; ?>

   <!-- Fixed navbar -->
    <div class="navbar navbar-default navbar-fixed-top" role="navigation">
      <div class="container">
        <div class="navbar-header">
          <button type="button" class="navbar-toggle collapsed" data-toggle="collapse" data-target=".navbar-collapse">
            <span class="sr-only">Toggle navigation</span>
            <span class="icon-bar"></span>
            <span class="icon-bar"></span>
            <span class="icon-bar"></span>
          </button>
          <a class="navbar-brand" href="./"><img src="images/icon.png" alt="Bank of Rory Logo" align="middle">&nbsp;Bank of Rory</a>
        </div>
        <div class="navbar-collapse collapse">
          <ul class="nav navbar-nav">
            <li><a href="./">Home</a></li>
            <li><a href="./about">About</a></li>
          </ul>
          <ul class="nav navbar-nav navbar-right">
            <li><a href="./login">Log in</a></li>
      <li class="active"><a href="./signup">Sign Up</a></li>
     </ul>
    </div><!--/.nav-collapse -->
   </div>
  </div>

  <div class="container">

   <!-- Main component for a primary marketing message or call to action -->
   <div class="jumbotron">
        <p>&nbsp;</p>
    <div id="headingWhite"><img src="images/borlogo.png" alt="Bank of Rory Logo"
align="middle">&nbsp;Bank of Rory</div>
    <p>Please fill out the form below to regiater as a new account.</p>
    <p>Thanking for Banking at the Bank Of Rory</p>
    <div>
                          <?php if (isset($myerror)) { ?>
                                       <div class="alert alert-danger" role="alert">
                                                    <p class="alert-link
error_message">Error: <?php echo $myerror['error'];?> </p>
                                       </div>
      <?php }  ?>
      <form class="form-signin" role="form" method="POST" action="./signup">
       <div class="form-group form-group-lg">
        <label for="inputEmail3" class="col-sm-2 control-label">Username/Email</label>
        <div class="col-sm-4">
         <input type="email" class="form-control" name="inputEmail3"
placeholder="Email Address" required autofocus>
        </div>
       </div>
       <p>&nbsp;</p>
       <div class="form-group form-group-lg">
        <label for="input_fname" class="col-sm-2 control-label">First Name</label>
        <div class="col-sm-4">
         <input type="text" class="form-control" name="input_fname" placeholder="First
Name" required>
        </div>
                          <p>&nbsp;</p>
       </div>
                    <div class="form-group form-group-lg">
        <label for="input_lname" class="col-sm-2 control-label">Last Name</label>
        <div class="col-sm-4">
         <input type="text" class="form-control" name="input_lname" placeholder="Last
Name" required>
```

```
       </div>
                        <p>&nbsp;</p>
      </div>

                   <div class="form-group form-group-lg">
       <label for="input_age" class="col-sm-2 control-label">Age</label>
       <div class="col-sm-4">
        <input type="text" class="form-control" name="input_age" placeholder="Age"
required>
       </div>
      </div>
      <p>&nbsp;</p>
      <div class="form-group form-group-lg">
       <label for="input_street" class="col-sm-2 control-label">Street</label>
       <div class="col-sm-4">
        <input type="text" class="form-control" name="input_street"
placeholder="Street" required>
       </div>
      </div>
      <p>&nbsp;</p>
                   <div class="form-group form-group-lg">
       <label for="input_city" class="col-sm-2 control-label">City</label>
       <div class="col-sm-4">
        <input type="text" class="form-control" name="input_city" placeholder="City"
required>
       </div>
                        <p>&nbsp;</p>
      </div>
                   <div class="form-group form-group-lg">
       <label for="input_country" class="col-sm-2 control-label">Country</label>
       <div class="col-sm-4">
        <input type="text" class="form-control" name="input_country"
placeholder="Country" required>
       </div>
      </div>
                   <p>&nbsp;</p>
      <div class="form-group form-group-lg">
       <label for="input_pass" class="col-sm-2 control-label">Password</label>
       <div class="col-sm-4">
        <input type="password" class="form-control" name="input_pass"
placeholder="Password" required>
       </div>
      </div>
      <p>&nbsp;</p>
```

```
                                        <div class="form-group form-group-lg">
               <label for="input_cpass" class="col-sm-2 control-label">Confirm Password</label>
               <div class="col-sm-4">
                 <input type="password" class="form-control" name="input_cpass"
placeholder="Confirm Password" required>
               </div>
             </div>
             <p>&nbsp;</p>
             <div class="form-group form-group-lg">
               <div class="col-sm-offset-2 col-sm-4">
                 <button type="submit" class="btn btn-lg btn-primary btn-block">Create
Account</button>
               </div>
             </div>
           </form>
        </div>

        <p>&nbsp;</p>
<p>
      <img src="images/bank-icon.png" alt="bank" width="138" height="138" align="right">
      </p>
      </div>

      </div>



    </div> <!-- /container -->
            <?php include 'view/footer.php'; ?>
```

Appendix – user_account.php

```
<?php
$app = Slim\Slim::getInstance();
if(isset($_SESSION['role']))
{

            if($_SESSION['role'] != 1){

                        if($_SESSION['user_id'] != $user['account_no'] )
                        {

                                    $app->redirect('../../error');
```

```
                }
        }

 $pagename = "Dashboard";
 include 'view/header_dash.php';
 ?>
<!doctype html>
<body>
        <?php if($_SESSION['role'] == 1 || $_SESSION['role'] == 2){ ?>

                <header id="header">
                        <hgroup>
                                <h1 class="site_title">Bank of Rory - <a
href="../../dashboard/admin/<?php echo($_SESSION['user_id']);?>">Dashboard</a></h1>
                                <h2 class="section_title">&nbsp;</h2><div
class="btn_view_site"><a href="../../dashboard/user_details/<?php
echo($user['account_no']);?>"><?php echo $_SESSION['fname'].'
'.$_SESSION['lname']?></a></div>
                                </h2><div class="btn_view_site"><a href="../../logout">Log
Out</a></div>
                        </hgroup>
                </header> <!-- end of header bar -->

                <section id="secondary_bar">
                        <div class="user">
                        </div>
                        <div class="breadcrumbs_container">
                                <article class="breadcrumbs"><a class="current"
href="../../dashboard/admin/<?php echo $_SESSION['user_id'];?>">Dashboard</a>
</article>
                        </div>
                </section><!-- end of secondary bar -->
        <?php } else {?>
                 <header id="header">
                        <hgroup>
                                <h1 class="site_title">Bank of Rory - <a
href="../../dashboard/user/<?php echo($user['account_no']);?>">Dashboard</a></h1>
                                <h2 class="section_title">&nbsp;</h2><div
class="btn_view_site"><a href="../../dashboard/user_details/<?php
echo($user['account_no']);?>"><?php echo $_SESSION['fname'].'
'.$_SESSION['lname']?></a></div>
                                </h2><div class="btn_view_site"><a href="../../logout">Log
Out</a></div>
```

```
            </hgroup>
        </header> <!-- end of header bar -->

        <section id="secondary_bar">
            <div class="user">
            </div>
            <div class="breadcrumbs_container">
                <article class="breadcrumbs"><a class="current"
href="../../dashboard/user/<?php echo($user['account_no']);?>">Dashboard</a> </article>
            </div>
        </section><!-- end of secondary bar -->

     <?php }?>


    <?php  require 'view/side_bar.php';?>
    <section id="main" class="column">

      <div class="clear"></div><!-- end of post new article -->

       <?php if($_SESSION['role'] == 1 || $_SESSION['role'] == 2){ ?>
        <article class="module width_full">
           <header><h3>List Accounts</h3></header>
                <div class="module_content">
                    <h1>Account History</h1>
                    <table class="view_table">
                        <tr>

    <td><p><strong>Role:</strong></p></td><td>  <?php
                        if($_SESSION['role'] == 1){
                            echo "Admin Role";
                        }else if($_SESSION['role'] == 2){
                            echo "Support Role";
                        }?></td>
                        </tr>
                        <tr>
                            <td><p><strong>Account
Number:</strong></p></td><td><?php echo($user['id']);?></td>
                        </tr>
                        <tr>
                            <td><p><strong>First
Name:</strong></p></td><td><?php echo($user['first_name']);?></td>
                        </tr>
                        <tr>
```

```
                                                            <td><p><strong>Last
Name:</strong></p></td><td> <?php echo($user['last_name']);?></td>
                                                  </tr>
                                                  <tr>

        <td><p><strong>Username/Email:</strong></p></td><td> <?php
echo($user['email']);?></td>
                                                  </tr>
                                                  <tr>

        <td><p><strong>Address:</strong></p></td><td>  <?php echo($user['street'].',
'.$user['city'].', '.$user['country']);?></td>
                                                  </tr>

                                                  </table>

                                                  <p>Click here to <a
href="../../dashboard/user_details/<?php echo($user['account_no']);?>">Update
Account</a></p>
                                    </div>

         </article><!-- end of styles article -->
         <div class="spacer"></div>
         <article class="module width_full">
                  <header><h3>Account Overview</h3></header>
                                    <div class="module_content">
                                             <h1>Account Overview</h1>
                                             <p>Below is a list of all the present accounts</p>



                                             <table id="data_table_sort" class="display">
                                                  <thead>
                                                           <tr>
                                                                    <th>A/C No.</th>
                                                                    <th>A/C Type</th>
                                                                    <th>A/C Holders Name</th>
                                                                    <th>Age</th>
                                                                    <th>Country of Residence</th>
                                                                    <th>Balance</th>
                                                                    <th>Show Details</th>
                                                                    <th>Show History</th>
                                                           </tr>
                                                  </thead>
```

```
                        <tbody>
                            <?php foreach ($accounts as $account) :
?>
                                <tr>
                                    <td><?php echo
$account['id']; ?></td>
                                    <td><?php


    if($account['account_type_id'] == 1){
                                            echo "<p
id=\"account_current\">Current Account</p>";
                                        }else{
                                            echo "<p
id=\"account_student\">Student Account</p>";
                                        }
                                    ?></td>
                                    <td><?php echo
$account['first_name'].' '.$account['last_name']; ?></td>
                                    <td><?php echo
$account['age']; ?></td>
                                    <td><?php echo
$account['country']; ?></td>
                                    <td>&euro; <?php echo
$account['balance']; ?></td>
                                    <td>
                                        <form
action="../../dashboard/user_details/<?php echo $account['account_no'];?>"
method="GET">
                                            <input
type="submit" value="Update" />
                                        </form>
                                    </td>
                                    <td>
                                        <form
action="../../dashboard/user_history/<?php echo $account['account_no']?>"
method="GET">
                                            <input
type="submit" value="History" />
                                        </form>
                                    </td>

                                </tr>
                            <?php endforeach; ?>
```

```
                                        </tbody>
                              </table>



                    </div>




        </article><!-- end of styles article -->



        <?php } else {?>

                         <article class="module width_full">
                          <header><h3>Account Overview</h3></header>
                                   <div class="module_content">
                                        <h1>Account Overview</h1>
                                        <?php if (isset($user)) { ?>
                                        <table class="view_table">
                                        <tr>
                                        <td><p><strong>Account
Number:</strong></p></td><td><?php echo($user['id']);?></td>
                                        </tr>
                                        <tr>
                                        <td><p><strong>First
Name:</strong></p></td><td><?php echo($user['first_name']);?></td>
                                        </tr>
                                        <tr>
                                        <td><p><strong>Last
Name:</strong></p></td><td> <?php echo($user['last_name']);?></td>
                                        </tr>
                                        <tr>

     <td><p><strong>Username/Email:</strong></p></td><td> <?php
echo($user['email']);?></td>
                                        </tr>
                                        <tr>
                                        <td><p><strong>Age:</strong></p></td><td>
<?php echo($user['age']);?></td>
                                        </tr>
                                        <tr>
```

```
	<td><p><strong>Address:</strong></p></td><td>  <?php echo($user['street'].', 
'.$user['city'].', '.$user['country']);?></td>
							</tr>
							<tr>
							
	<td><p><strong>Balance:</strong></p></td><td>&euro; <?php 
echo($user['balance']);?></td>
							</tr>
							<tr>
							<td><p><strong>Account 
Type:</strong></p></td><td>
							<?php
								if($user['account_type_id'] == 1){
									echo "Current Account";
								}else{
									echo "Student Account";
								}
							?></td>
							</tr>
							</table>
							<?php }?>
							<div class="spacer"></div>

							<h3>Quick Links <a 
href="../../dashboard/user_deposit/<?php echo($user['account_no']);?>">Deposit 
Money</a>&nbsp;&nbsp;
							<a 
href="../../dashboard/user_withdrawal/<?php echo($user['account_no']);?>">Withdraw 
Money</a>&nbsp;&nbsp;
							<a href="../../dashboard/user_history/<?php 
echo($user['account_no']);?>">Account History</a> </h3>


						</div>
			</article><!-- end of styles article -->
	  <?php }?>
		  <div class="spacer"></div>

	</section>

<?php include 'view/footer_dash.php';

}else{
```

```
                $app->redirect('../../error');

}


?>
```

Appendix – user_details.php

```
<?php
$app = Slim\Slim::getInstance();
if(isset($_SESSION['role']))
{

        if($_SESSION['role'] != 1 && $_SESSION['role'] != 2){

                if($_SESSION['user_id'] != $user['account_no'] )
                {

                        $app->redirect('../../error');

                }
        }

 $pagename = "Update Account";
 include 'view/header_dash.php';
 ?>
<!doctype html>
<body>

         <?php if($_SESSION['role'] == 1 || $_SESSION['role'] == 2){ ?>

                <header id="header">
                        <hgroup>
                                <h1 class="site_title">Bank of Rory - <a
href="../../dashboard/admin/<?php echo($_SESSION['user_id']);?>">Dashboard</a></h1>
                                <h2 class="section_title">&nbsp;</h2><div
class="btn_view_site"><a href="../../dashboard/user_details/<?php echo
$_SESSION['user_id'];?>"><?php echo $_SESSION['fname'].'
'.$_SESSION['lname']?></a></div>
                                </h2><div class="btn_view_site"><a href="../../logout">Log
Out</a></div>
```

```
                    </hgroup>
            </header> <!-- end of header bar -->

            <section id="secondary_bar">
                    <div class="user">
                    </div>
                    <div class="breadcrumbs_container">
                            <article class="breadcrumbs"><a
href="../../dashboard/admin/<?php echo $_SESSION['user_id'];?>">Dashboard</a><div
class="breadcrumb_divider"></div> <a href="../../dashboard/user_details/<?php echo
$_SESSION['user_id'];?>" class="current">Update Account</a> </article>
                    </div>
            </section><!-- end of secondary bar -->
        <?php } else {?>

            <header id="header">
                    <hgroup>
                            <h1 class="site_title">Bank of Rory - <a
href="../../dashboard/user/<?php echo($user['account_no']);?>">Dashboard</a></h1>
                            <h2 class="section_title">&nbsp;</h2><div
class="btn_view_site"><a href="../../dashboard/user_details/<?php
echo($user['account_no']);?>"><?php echo $_SESSION['fname'].'
'.$_SESSION['lname']?></a></div>
                            </h2><div class="btn_view_site"><a href="../../logout">Log
Out</a></div>
                    </hgroup>
            </header> <!-- end of header bar -->

            <section id="secondary_bar">
                    <div class="user">
                    </div>
                    <div class="breadcrumbs_container">
                            <article class="breadcrumbs"><a
href="../../dashboard/user/<?php echo($user['account_no']);?>">Dashboard</a><div
class="breadcrumb_divider"></div> <a href="../../dashboard/user_details/<?php
echo($user['account_no']);?>" class="current">Update Account</a> </article>
                    </div>
            </section><!-- end of secondary bar -->
        <?php }?>
        <?php  require 'view/side_bar.php';?>


        <section id="main" class="column">
        <?php if($_SESSION['role'] == 1){ ?>
        <div class="clear"></div><!-- end of post new article -->
        <article class="module width_full">
                <header><h3>Update Account Type</h3></header>
                        <div class="module_content">
                                <h1>Update Account Type</h1>

                                <p>Please choose the account type. <em>Current
account type is selected</em></p>

                                <form class="form-horizontal" role="form"
method="POST" action="../../dashboard/account_type/<?php
echo($user['account_no']);?>">
                                        <input type="hidden"
name="_METHOD" value="PUT"/>
                                     <table class="view_table">

                                     <tr>
                                     <div class="form-group">
                                        <th><label for="input_account"
class="col-sm-2 control-label">Account Type</label></th>
                                        <td><select name="input_account">

                                        <?php foreach ($account_types as
$type) : ?>

                                                <?php
if($user['account_type_id'] == $type['id'] ){ ?>
                                                        <option value="<?php
echo $type['id'];?>" selected><?php echo $type['type'];?></option>
                                                 <?php }else{?>
                                                        <option value="<?php
echo $type['id'];?>"><?php echo $type['type'];?></option>
                                        <?php } endforeach; ?>
                                        </select></td>

                                     </div>
                                     </tr>

                                     <tr>
                                        <td>
                                     <div class="form-group">
                                        <div class="col-sm-offset-2 col-sm-10">
                                         <button type="submit" class="btn btn-
lg btn-primary btn-block">Update Account Type</button>
```

```
                                           </div>
                                      </div>
                                      </td>
                                     <td></td>
                                      </tr>
                                      </table>
                               </form>


                         </div>
                         <p>&nbsp;</p>

       </article><!-- end of styles article -->
            <div class="clear"></div><!-- end of post new article -->
      <article class="module width_full">
             <header><h3>Update Balance</h3></header>
                         <div class="module_content">
                               <h1>Update Balance</h1>

                               <p>Please enter a new balance for this user.
<em>Changes should only be done due to Error</em></p>
                               <p>Balance changes are noted in the account
transaction history</p>
                               <p>&nbsp;</p>
                               <h3>Current Balance: &nbsp;&euro; <?php
echo($user['balance']);?></h3>

                               <?php if (isset($myerror_bal)) { ?>
                                           <div class="alert alert-danger"
role="alert">
                                                       <p class="alert-link
error_message">Error: <?php echo $myerror_bal['error'];?> </p>
                                           </div>
                               <?php }  ?>
                               <form class="form-horizontal" role="form"
method="POST" action="../../dashboard/update_balance/<?php
echo($user['account_no']);?>">

                                           <input type="hidden"
name="account_num" value="<?php echo $user['id'];?>"/>
                                      <table class="view_table">

                                      <tr>
                                      <div class="form-group">
```

```
                                                              <th><label for="balance" class="col-sm-
2 control-label">Change Balance To </label></th>
                                                              <td>&euro; &nbsp;<input type="text"
class="form-control" name="balance" placeholder="New Balance" required></td>

                                                    </div>
                                                    </tr>

                                                     <tr>
                                                              <td>
                                                    <div class="form-group">
                                                              <div class="col-sm-offset-2 col-sm-10">
                                                                <button type="submit" class="btn btn-
lg btn-primary btn-block">Update Balance</button>
                                                              </div>
                                                    </div>
                                                    </td>
                                                  <td></td>
                                                     </tr>
                                                    </table>
                                          </form>


                                </div>
                                <p>&nbsp;</p>

             </article><!-- end of styles article -->
           <?php } ?>
             <div class="clear"></div><!-- end of post new article -->

                       <article class="module width_full">
                         <header><h3>Update Account</h3></header>
                                <div class="module_content">
                                          <h1>Update Account</h1>
                                          <?php if (isset($myerror_up)) { ?>
                                                              <div class="alert alert-danger"
role="alert">
                                                                                  <p class="alert-link
error_message">Error: <?php echo $myerror_up['error'];?> </p>
                                                              </div>
                                          <?php }  ?>

                                          <form class="form-horizontal" role="form"
method="POST" action="../../dashboard/update/<?php echo($user['account_no']);?>">
```

```
                                                        <input type="hidden"
name="_METHOD" value="PUT"/>
                                                   <table class="view_table">
                                                   <tr>
                                                  <div class="form-group">
                                                        <th><label for="inputEmail3" class="col-
sm-2 control-label">Username/Email</label></th>
                                                        <td><input type="email" class="form-
control" name="inputEmail3" value="<?php echo($user['email']);?>" disabled></td>
                                                  </div>
                                                  </tr>
                                                  <tr>
                                                  <div class="form-group">
                                                        <th><label for="input_fname"
class="col-sm-2 control-label">First Name</label></th>
                                                        <td><input type="text" class="form-
control" name="input_fname" value="<?php echo($user['first_name']);?>" required></td>


                                                  </div>
                                                  </tr>
                                                   <tr>
                                                  <div class="form-group">
                                                        <th><label for="input_lname"
class="col-sm-2 control-label">Last Name</label></th>
                                                        <td><input type="text" class="form-
control" name="input_lname" value="<?php echo($user['last_name']);?>" required></td>


                                                  </div>
                                                   </tr>
                                                   <tr>
                                                  <div class="form-group">
                                                        <th><label for="input_age" class="col-
sm-2 control-label">Age</label></th>
                                                        <td><input type="text" class="form-
control" name="input_age" value="<?php echo($user['age']);?>" required></td>
                                                        </div>
                                                         </tr>
                                                   <tr>

                                                  <div class="form-group">
                                                        <th><label for="input_street" class="col-
sm-2 control-label">Street</label></th>
```

```
                                        <td><input type="text" class="form-control" name="input_street" value="<?php echo($user['street']);?>" required></td>

                                </div>
                                 </tr>
                                 <tr>

                                <div class="form-group">
                                        <th><label for="input_city" class="col-sm-2 control-label">City</label></th>
                                        <td><input type="text" class="form-control" name="input_city" value="<?php echo $user['city'];?>" required></td>



                                </div>
                                 </tr>
                                 <tr>
                                <div class="form-group">
                                        <th><label for="input_country" class="col-sm-2 control-label">Country</label></th>
                                        <td><input type="text" class="form-control" name="input_country" value="<?php echo $user['country'];?>" required></td>

                                </div>
                                </tr>
                                 <tr>
                                        <td>
                                <div class="form-group">
                                        <div class="col-sm-offset-2 col-sm-10">
                                          <button type="submit" class="btn btn-lg btn-primary btn-block">Update Account</button>
                                        </div>
                                </div>
                                </td>
                               <td></td>
                                 </tr>
                                </table>
                        </form>
                        <?php if (isset($myerror)) { ?>
                                             <div class="alert alert-danger" role="alert">
                                                                  <p class="alert-link error_message">Error: <?php echo $myerror['error'];?> </p>
                                </div>
                    <?php }  ?>
                    <form class="form-signin" role="form"
action="../../dashboard/update/<?php echo($user['account_no']);?>" method="POST">
                     <div class="form-group form-group-lg">
                        <div class="col-sm-offset-2 col-sm-10">
                         <input type="hidden" name="_METHOD"
value="DELETE"/>
                         <input type="hidden" name="account_no"
value="<?php echo $user['id'];?>"/>
                         <button type="submit" onclick="return
confirm('Deleting your account will delete all transactions and account information. Are you
sure you would like to delete your account?');" class="btn btn-lg btn-primary btn-
block">Delete Account</button>
                        </div>
                     </div>
                    </form>
                </div>
                <p>&nbsp;</p>
                <?php if($_SESSION['role'] != 1 && $_SESSION['role'] != 2){ ?>
                    <h3>Quick Links <a
href="../../dashboard/user_deposit/<?php echo($user['account_no']);?>">Deposit
Money</a>&nbsp;&nbsp;
                    <a href="../../dashboard/user_withdrawal/<?php
echo($user['account_no']);?>">Withdraw Money</a>&nbsp;&nbsp;
                    <a href="../../dashboard/user_history/<?php
echo($user['account_no']);?>">Account History</a> </h3>


                <?php }?>
    </article><!-- end of styles article -->
        <div class="spacer"></div>
        <article class="module width_full">
            <header><h3>Update Account Password</h3></header>
                    <div class="module_content">
                        <h1>Update Account Password</h1>

                        <p>Please enter a new passowrd.</p>
                        <?php if (isset($myerror_pas)) { ?>
                            <div class="alert alert-danger"
role="alert">
                                    <p class="alert-link
error_message">Error: <?php echo $myerror_pas['error'];?> </p>
                            </div>
```

```
                                    <?php }  ?>
                              <form class="form-horizontal" role="form"
method="POST" action="../../dashboard/account_pass/<?php
echo($user['account_no']);?>">

                                    <input type="hidden" name="_METHOD"
value="PUT"/>

                                     <table class="view_table">



                                                 <tr>
                                            <div class="form-group">
                                                 <th><label for="input_pass"
class="col-sm-2 control-label">Password</label></th>
                                                 <td><input type="password"
class="form-control" name="input_pass" placeholder="New Password" required></td>

                                            </div>
                                            </tr>
                                            <tr>
                                            <div class="form-group">
                                                 <th><label for="input_cpass"
class="col-sm-2 control-label">Confirm New Password</label></th>
                                                 <td><input type="password"
class="form-control" name="input_cpass" placeholder="Confirm New Password"
required></td>
                                                  <input type="hidden"
name="inputEmail3" value="<?php echo($user['email']);?>">
                                            </div>
                                             </tr>

                                     <tr>
                                           <td>
                                     <div class="form-group">
                                           <div class="col-sm-offset-2 col-sm-10">
                                            <button type="submit" class="btn btn-
lg btn-primary btn-block">Update Account Password</button>
                                           </div>
                                     </div>
                                     </td>
                                    <td></td>
                                     </tr>
```

```
                                                        </table>
                                                </form>


                                                </div>
                                                <p>&nbsp;</p>

                        </article><!-- end of styles article -->

                 <div class="clear"></div><!-- end of post new article -->
                <div class="spacer"></div>
                </section>

<?php include 'view/footer_dash.php';

}else{

                        $app->redirect('../../error');

}


?>
```

Appendix – user_history.php

```
<?php
$app = Slim\Slim::getInstance();
if(isset($_SESSION['role']))
{

        if($_SESSION['role'] != 1 && $_SESSION['role'] != 2){

                if($_SESSION['user_id'] != $user['account_no'] )
                {

                        $app->redirect('../../error');

                }
        }

 $pagename = "Account History";
 include 'view/header_dash.php';
 ?>
<!doctype html>
<body>

		<?php if($_SESSION['role'] == 1 || $_SESSION['role'] == 2){ ?>

			<header id="header">
				<hgroup>
					<h1 class="site_title">Bank of Rory - <a
href="../../dashboard/admin/<?php echo($_SESSION['user_id']);?>">Dashboard</a></h1>
					<h2 class="section_title">&nbsp;</h2><div
class="btn_view_site"><a href="../../dashboard/user_details/<?php echo
$_SESSION['user_id'];?>"><?php echo $_SESSION['fname'].'
'.$_SESSION['lname']?></a></div>
					</h2><div class="btn_view_site"><a href="../../logout">Log
Out</a></div>
				</hgroup>
			</header> <!-- end of header bar -->

			<section id="secondary_bar">
				<div class="user">
				</div>
				<div class="breadcrumbs_container">
					<article class="breadcrumbs"><a
href="../../dashboard/admin/<?php echo $_SESSION['user_id'];?>">Dashboard</a><div
class="breadcrumb_divider"></div> <a href="../../dashboard/user_history/<?php
echo($user['account_no']);?>" class="current">Account History</a> </article> </article>
				</div>
			</section><!-- end of secondary bar -->
		<?php } else {?>


			<header id="header">
				<hgroup>
					<h1 class="site_title">Bank of Rory - <a
href="../../dashboard/user/<?php echo($user['account_no']);?>">Dashboard</a></h1>
					<h2 class="section_title">&nbsp;</h2><div
class="btn_view_site"><a href="../../dashboard/user_details/<?php
echo($user['account_no']);?>"><?php echo $_SESSION['fname'].'
'.$_SESSION['lname']?></a></div>
					</h2><div class="btn_view_site"><a href="../../logout">Log
Out</a></div>
				</hgroup>
			</header> <!-- end of header bar -->
```

```
        <section id="secondary_bar">
            <div class="user">
            </div>
            <div class="breadcrumbs_container">
                <article class="breadcrumbs"><a
href="../../dashboard/user/<?php echo($user['account_no']);?>">Dashboard</a><div
class="breadcrumb_divider"></div> <a href="../../dashboard/user_history/<?php
echo($user['account_no']);?>" class="current">Account History</a> </article>
            </div>
        </section><!-- end of secondary bar -->

    <?php }?>
    <?php  require 'view/side_bar.php';?>
    <section id="main" class="column">



      <div class="clear"></div><!-- end of post new article -->

        <article class="module width_full">
          <header><h3>Account History</h3></header>
                <div class="module_content">
                    <h1>Account History</h1>
                    <p>Below is a list of all your transactions</p>
                    <p><strong>Account Number:</strong> <?php
echo($user['id']);?></p>
                    <p><strong>Name:</strong> <?php
echo($user['first_name']);?> <?php echo($user['last_name']);?></p>
                    <p><strong>Balance:</strong>  <?php
echo($user['balance']);?></p>
                    <p><strong>Account Type:</strong>
                    <?php
                        if($user['account_type_id'] == 1){
                            echo "Current Account";
                        }else{
                            echo "Student Account";
                        }
                    ?></p>

                    <table id="data_table" class="display">
                        <thead>
                            <tr>
                                <th>Transaction ID</th>
                                <th>Date & Time</th>
                                <th>Type</th>
                                <th>Amount</th>
                            </tr>
                        </thead>
                        <tbody>
                            <?php foreach ($trans as $tran) : ?>
                                <tr>
                                    <td><?php echo
$tran['transaction_id']; ?></td>
                                    <td><?php echo
$tran['transactions_time']; ?></td>
                                    <td><?php echo
$tran['transaction_type']; ?></td>
                                    <td>&euro; <?php echo
$tran['transaction_amount']; ?></td>
                                </tr>
                            <?php endforeach; ?>
                        </tbody>
                    </table>



                </div>
                <p>&nbsp;</p>
                <?php if($_SESSION['role'] != 1 && $_SESSION['role'] != 2){ ?>
                    <h3>Quick Links <a
href="../../dashboard/user_deposit/<?php echo($user['account_no']);?>">Deposit
Money</a>&nbsp;&nbsp;
                    <a href="../../dashboard/user_withdrawal/<?php
echo($user['account_no']);?>">Withdraw Money</a>&nbsp;&nbsp;
                    <a href="../../dashboard/user_history/<?php
echo($user['account_no']);?>">Account History</a> </h3>
                <?php }?>


     </article><!-- end of styles article -->
        <div class="spacer"></div>

    </section>

<?php include 'view/footer_dash.php';

}else{
			$app->redirect('../../error');

}


?>
```

Appendix – view_all_tickets.php

```
<?php
$app = Slim\Slim::getInstance();
if(isset($_SESSION['role']))
{

		if($_SESSION['role'] == 1 || $_SESSION['role'] == 2){



 $pagename = "Help Desk - View All Tickets";
 include 'view/header_dash.php';
 ?>
<!doctype html>
<body>



			<header id="header">
				<hgroup>
					<h1 class="site_title">Bank of Rory - <a
href="../../dashboard/admin/<?php echo($_SESSION['user_id']);?>">Dashboard</a></h1>
					<h2 class="section_title">&nbsp;</h2><div
class="btn_view_site"><a href="../../dashboard/user_details/<?php echo
$_SESSION['user_id'];?>"><?php echo $_SESSION['fname'].'
'.$_SESSION['lname']?></a></div>
					</h2><div class="btn_view_site"><a href="../../logout">Log
Out</a></div>
				</hgroup>
			</header> <!-- end of header bar -->

			<section id="secondary_bar">
				<div class="user">
				</div>
				<div class="breadcrumbs_container">
```

```
                <article class="breadcrumbs"><a
href="../../dashboard/admin/<?php echo $_SESSION['user_id'];?>">Dashboard</a><div
class="breadcrumb_divider"></div> <a href="../../dashboard/view_all_tickets/<?php echo
$_SESSION['user_id'];?>" class="current">Help Desk - View All Tickets</a> </article>
</article>
            </div>
        </section><!-- end of secondary bar -->


    <?php  require 'view/side_bar.php';?>


    <section id="main" class="column">



     <div class="clear"></div><!-- end of post new article -->

        <article class="module width_full">
          <header><h3>Help Desk - View All Ticket</h3></header>
                <div class="module_content">
                    <h1>Help Desk - View All Ticket</h1>

                <p>Shown below is a list of all the support tickets that have
been sent to the help desk department.</p>
                <p><em>please note you can search by a field by entering the
value into the search box.</em></p>
                <p>&nbsp;</p>
                <?php if (!isset($tickets)) { ?>
                        <div class="alert alert-danger" role="alert">
                                <p class="alert-link
error_message">No Tickets Available </p>
                        </div>
      <?php }  ?>
                <table id="data_table" class="display">
                        <thead>
                            <tr>
                                <th>A/C No.</th>
                                <th>Date</th>
                                <th>Message</th>
                                <th>Read More</th>
                                <th>Area</th>
                                <th>Priority</th>
                                <th>Status</th>
```

```
                                                            <th>Response</th>
                                                            <th>Delete</th>

                                                      </tr>
                                                </thead>
                                                <tbody>

                                                      <?php

                                                            if (isset($tickets)) {

                                                            foreach ($tickets as $ticket) : ?>
                                                                  <tr>

      <td><strong><?php echo $ticket['account_num']; ?></strong></td>
                                                                        <td><?php echo
date('Y-m-d', $ticket['ts']->sec); ?></td>
                                                                        <td><?php echo
substr($ticket['message'], 0, 20).'...'; ?></td>
                                                                        <td><button
onclick='fullMessage("<?php echo htmlentities($ticket['message'], ENT_QUOTES);
?>")'>Read More</button></td>
                                                                        <td><?php echo
$ticket['area']; ?></td>
                                                                        <td><?php echo
$ticket['priority']; ?></td>
                                                                        <td><?php
if($ticket['status'] == 'Open'){
                                                                              echo '<p
id="status_open">'.$ticket['status'].'</p>';
                                                                        }else
if($ticket['status'] == 'Review'){
                                                                              echo '<p
id="status_review">'.$ticket['status'].'</p>';
                                                                        }else{
                                                                              echo '<p
id="status_closed">'.$ticket['status'].'</p>';
                                                                        }?></td>
                                                                  <?php
if(isset($ticket['response'])){ ?>

      <td><button onclick='fullMessage("<?php echo htmlentities($ticket['response'],
ENT_QUOTES); ?>");'>View</button></td>
```

```
                                                                                    <?php }else{ ?>

       <td>

              <form action="../../dashboard/ticket_reply/<?php echo
$_SESSION['user_id'];?>" method="POST">

                     <input type="hidden" name="ticket_id" value="<?php echo
$ticket['_id'];?>">

                     <input type="submit" value="Reply" />

              </form>

       </td>


                                                                                    <?php  } ?>
                                                                                    <?php
if($ticket['status'] == 'Closed'){ ?>
                                                                                           <td>

       <form action="../../dashboard/post_delete/<?php echo $_SESSION['user_id'];?>"
method="POST">

       <input type="hidden" name="ticket_id" value="<?php echo $ticket['_id'];?>">

       <input type="submit" value="X" onclick="return confirm('Are you sure you want to
delete this ticket?');" />

       </form>
                                                                                           </td>

                                                                                    <?php  }else{ ?>

       <td><p>&nbsp;</p></td>

                                                                                    <?php }?>
                                                                                    </tr>
                                                                      <?php endforeach;
                                                               }?>
```

```
                                        </tbody>
                              </table>



   </div>
  <p>&nbsp;</p>


     </article><!-- end of styles article -->
          <div class="spacer"></div>

     </section>

<?php include 'view/footer_dash.php';
     }else{
          $app->redirect('../../error');
     }


}else{

          $app->redirect('../../error');

}
```

Appendix – view_ticket.php

```
<?php
$app = Slim\Slim::getInstance();
if(isset($_SESSION['role']))
{

     if($_SESSION['role'] != 1){

          if($_SESSION['user_id'] != $user['account_no'] )
          {

               $app->redirect('../../error');

          }
     }
```

```
 $pagename = "Help Desk - View Ticket";
 include 'view/header_dash.php';
 ?>
<!doctype html>
<body>


            <header id="header">
                  <hgroup>
                        <h1 class="site_title">Bank of Rory - <a
href="../../dashboard/user/<?php echo($user['account_no']);?>">Dashboard</a></h1>
                        <h2 class="section_title">&nbsp;</h2><div
class="btn_view_site"><a href="../../dashboard/user_details/<?php
echo($user['account_no']);?>"><?php echo $_SESSION['fname'].'
'.$_SESSION['lname']?></a></div>
                        </h2><div class="btn_view_site"><a href="../../logout">Log
Out</a></div>
                  </hgroup>
            </header> <!-- end of header bar -->

            <section id="secondary_bar">
                  <div class="user">
                  </div>
                  <div class="breadcrumbs_container">
                        <article class="breadcrumbs"><a
href="../../dashboard/user/<?php echo($user['account_no']);?>">Dashboard</a><div
class="breadcrumb_divider"></div> <a href="../../dashboard/view_ticket/<?php
echo($user['account_no']);?>" class="current">Help Desk - View Ticket</a> </article>
                  </div>
            </section><!-- end of secondary bar -->
      <?php  require 'view/side_bar.php';?>


      <section id="main" class="column">



       <div class="clear"></div><!-- end of post new article -->

            <article class="module width_full">
             <header><h3>Help Desk - View Ticket</h3></header>
                        <div class="module_content">
                              <h1>Help Desk - View Ticket</h1>
```

```
                <p>Shown below is a list of your support tickets that you have
sent to our help desk department.</p>
                <p><em>please note you can search by a field by entering the
value into the search box.</em></p>
                <?php if (!isset($tickets)) { ?>
                        <div class="alert alert-danger" role="alert">
                                <p class="alert-link
error_message">No Tickets Available </p>
                        </div>
    <?php }  ?>
                <table id="data_table" class="display">
                        <thead>
                            <tr>

                                <th>Date</th>
                                <th>Message</th>
                                <th>Read More</th>
                                <th>Area</th>
                                <th>Priority</th>
                                <th>Status</th>
                                <th>Response</th>
                                <th>Read More</th>
                            </tr>
                        </thead>
                        <tbody>

                            <?php

                                if (isset($tickets)) {

                                foreach ($tickets as $ticket) : ?>
                                    <tr>

                                        <td><?php echo
date('Y-m-d', $ticket['ts']->sec); ?></td>
                                        <td><?php echo
substr($ticket['message'], 0, 20).'...'; ?></td>
                                        <td><button
onclick='fullMessage("<?php echo htmlentities($ticket['message'], ENT_QUOTES);
?>")'>Read More</button></td>
                                        <td><?php echo
$ticket['area']; ?></td>
```

```
                                                                        <td><?php echo
$ticket['priority']; ?></td>
                                                                        <td><?php
if($ticket['status'] == 'Open'){
                                                                              echo '<p
id="status_open">'.$ticket['status'].'</p>';
                                                                        }else
if($ticket['status'] == 'Review'){
                                                                              echo '<p
id="status_review">'.$ticket['status'].'</p>';
                                                                        }else{
                                                                              echo '<p
id="status_closed">'.$ticket['status'].'</p>';
                                                                        }?></td>
                                                                  <?php
if(isset($ticket['response'])){ ?>
                                                                              <td><?php
echo substr($ticket['response'], 0, 20).'...'; ?></td>

      <td><button onclick='fullMessage("<?php echo htmlentities($ticket['response'],
ENT_QUOTES); ?>")'>More</button></td>


                                                                        <?php
      }else{ ?>
                                                                              <td>
<p>&nbsp;</p> </td>
                                                                              <td>
<p>&nbsp;</p> </td>
                                                                        <?php       } ?>

                                                                  </tr>
                                                            <?php endforeach;
                                                      }?>

                                                </tbody>
                                    </table>



    </div>
   <p>&nbsp;</p>
```

```
                                                <h3>Quick Links <a
href="../../dashboard/user_deposit/<?php echo($user['account_no']);?>">Deposit
Money</a>&nbsp;&nbsp;
                                                <a href="../../dashboard/user_withdrawal/<?php
echo($user['account_no']);?>">Withdraw Money</a>&nbsp;&nbsp;
                                                <a href="../../dashboard/user_history/<?php
echo($user['account_no']);?>">Account History</a> </h3>


                                      </div>
           </article><!-- end of styles article -->
                   <div class="spacer"></div>

         </section>

<?php include 'view/footer_dash.php';

}else{

                   $app->redirect('../../error');

}
```

Appendix – withdrawal.php

```
<?php
$app = Slim\Slim::getInstance();
if(isset($_SESSION['role']))
{

         if($_SESSION['role'] != 1){

                   if($_SESSION['user_id'] != $user['account_no'] )
                   {

                             $app->redirect('../../error');

                   }
         }

 $pagename = "Deposit";
 include 'view/header_dash.php';
 ?>
```

```
<!doctype html>
<body>

        <header id="header">
                <hgroup>
                        <h1 class="site_title">Bank of Rory - <a
href="../../dashboard/user/<?php echo($user['account_no']);?>">Dashboard</a></h1>
                        <h2 class="section_title">&nbsp;</h2><div class="btn_view_site"><a
href="../../dashboard/user_details/<?php echo($user['account_no']);?>"><?php echo
$_SESSION['fname'].' '.$_SESSION['lname']?></a></div>
       </h2><div class="btn_view_site"><a href="../../logout">Log Out</a></div>
                </hgroup>
        </header> <!-- end of header bar -->

        <section id="secondary_bar">
                <div class="user">
                </div>
                <div class="breadcrumbs_container">
                        <article class="breadcrumbs"><a href="../../dashboard/user/<?php
echo($user['account_no']);?>">Dashboard</a><div class="breadcrumb_divider"></div> <a
href="../../dashboard/user_withdrawal/<?php echo($user['account_no']);?>"
class="current">Withdrawal</a> </article>
                </div>
        </section><!-- end of secondary bar -->
        <?php  require 'view/side_bar.php';?>


        <section id="main" class="column">




         <div class="clear"></div><!-- end of post new article -->

                <article class="module width_full">
                  <header><h3>Withdraw Money</h3></header>
                                <div class="module_content">
                                        <h1>Withdrawal</h1>
                                        <p>Please enter an amount to Withdraw.</p>
                                        <p>Current Balance: <strong>&euro; <?php echo
$user['balance'];?></strong></p>
                                <?php if (isset($myerror)) { ?>
                                                <div class="alert alert-danger" role="alert">
                                                        <p class="alert-link
error_message">Error: <?php echo $myerror['error'];?> </p>
```

```
                                     </div>
       <?php }  ?>
                         <?php if (isset($finish)) { ?>
           <div  class="alert alert-success" role="alert">
             <p class="alert-link error_message"><?php echo $finish['message'];?></p>
           </div>
                                     <p><--- Back to <a
href="../../dashboard/user/<?php echo($user['account_no']);?>">Dashboard</a></p>

       <?php } else{  ?>

                         <form class="form-horizontal" role="form"  method="POST"
action="../../dashboard/withdrawal/<?php echo($user['account_no']);?>">

                               <input type="hidden" name="_METHOD"
value="PUT"/>
                               <input type="hidden" name="account_num"
value="<?php echo $user['id'];?>"/>
                               <input type="hidden" name="balance" value="<?php
echo $user['balance'];?>"/>

                          <table class="view_table">
                          <tr>
                         <div class="form-group">
                               <th><label for="input_with" class="col-sm-2 control-
label">Withdrawal Amount</label></th>
                               <td>&euro; <input type="text" class="form-control"
name="input_with" placeholder="Withdrawal Amount" required autofocus></td>
                         </div>
                         </tr>
                          <tr>
                               <td>
                         <div class="form-group">
                               <div class="col-sm-offset-2 col-sm-10">
                                <button type="submit" class="btn btn-lg btn-primary
btn-block">Withdraw Money</button>
                               </div>
                         </div>
                         </td>
                         <td></td>
                          </tr>
                         </table>
     </form>
                  <?php } ?>
```

```
    </div>
    <p>&nbsp;</p>
                                        <h3>Quick Links <a
href="../../dashboard/user_deposit/<?php echo($user['account_no']);?>">Deposit
Money</a>&nbsp;&nbsp;
                                        <a href="../../dashboard/user_withdrawal/<?php
echo($user['account_no']);?>">Withdraw Money</a>&nbsp;&nbsp;
                                        <a href="../../dashboard/user_history/<?php
echo($user['account_no']);?>">Account History</a> </h3>


                                </div>
         </article><!-- end of styles article -->
                <div class="spacer"></div>

        </section>

<?php include 'view/footer_dash.php';

}else{

                $app->redirect('../../error');

}


?>
```