

# Online Banking System

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## ABSTRACT

In this project we are going to deal the existing facts in the bank i.e.; the transactions which takes place between customer and bank. Internet banking system services can include: Open an account, Balance enquiry, Request for Cheque book Beneficiary payments (EFT), Viewing monthly.

Furthermore, customer's application for electronic banking facilities is expanding at the cost savings on transactions over the Internet is significant.

This project aims at creation of a secure online banking system. This will be accessible to all customers who have a valid User Id and Password. This is an approach to provide an opportunity to the customers to have some important transactions to be done from where they are at present without moving to bank

**KEYWORDS** — Transactions, Balance Enquiry, Beneficiary payments (EFT), User Id and Password.

## I. INTRODUCTION:

The project is intended to provide online banking facilities such as checking accounts, paying mobile bills, getting pay-in slips and making transfers over World Wide Web. Customer is supposed to provide login id and password to access his bank account online.. In addition to conventional banking services the customer is also facilitated with service like recharging mobile accounts for Airtel customers. Administrator end is responsible for validating the user i.e. not allowing any unauthorized person to access the account. In event of a customer forgetting the Login password, provision has been made to provide password through a secure passage. Administrator is responsible for adding customers without affecting existing customers.

### (a)Objective and Scope of the project:

The main purpose of Online Banking Solution is to provide customers with an ability to make transactions online over a very user friendly interface.

### (b) Facilities provided:

**View Account:** Customer is authorized to check his account.

**Transfer Money:** Customer can transfer money online over a secure passage to another account.

**Credit Card Facility:** Customer can login using the credit card number. A customer can also apply for a credit card.

**Application Forms:** Different forms such as new cheque book request, change of address etc. can be downloaded.

**Customer Help:** A document enabling customers to understand Online Banking.

**Bill Payment:** Bills pertaining electricity, mobile can be paid online.

**Mobile Recharge:** In collaboration with Airtel, users can get their account recharged.

### (c) Architecture of Online Banking

The Online Banking Application is based on 3-tiered model. The Enterprise architecture for Online Banking.

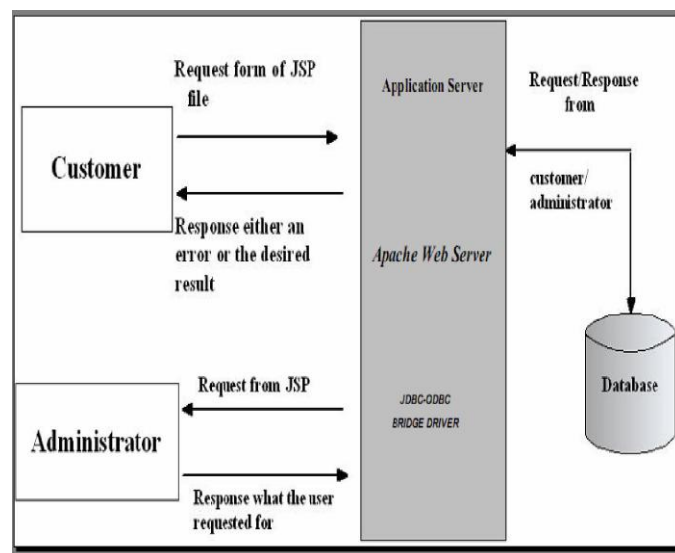


Fig 1.:Architecture of Online Banking

The 3-tiered architecture shown above has the following major components:

**Client:** There will be two clients for the application. One will be a web-based user friendly client called bank customers. The other will be for administration purposes.

**Application Server:** It takes care of the server script, takes care of JDBC-ODBC driver, and checks for the ODBC connectivity for mapping to the database in order to fulfill client and administrator's request.

**Database:** Database Servers will stores customer's and bank data.

**II. PROBLEM DEFINITION:**

The major concern for an Internet -banking is the ‘security’. There are many remote customers accessing the system and placing various requests/queries to get the required information or to make transactions with the bank at the time demanded. There are various aspects that are needed to address in this application. There should be a report generating Balance Enquiry the system need to guarantee the funds transfer to another account of the same bank. The system should provide assistance for request for

- Cheque book
- Change of address
- Stop payment of cheques

The system must generate various reports for the customers to view monthly and annual statements

**(a) PROPOSED SYSTEM:**

This proposed system aims at creation of a secure Internet -Banking system. This will be accessible to all customers who have a valid ‘user id’ and ‘Password’ the system provides .The following important functionalities

- Balance Enquiry
- Funds Transfer to another account in the same bank
- Request for cheque book\change of address\stop payment of cheques.
- Viewing monthly and annual statements

**(b) Event Diagram**

The diagram below indicates the customer connects to the internet to perform all the transactions after he logged in successfully then the information will receive the server to maintain the requirements, and it will send a copy of the data to the database and vice versa.

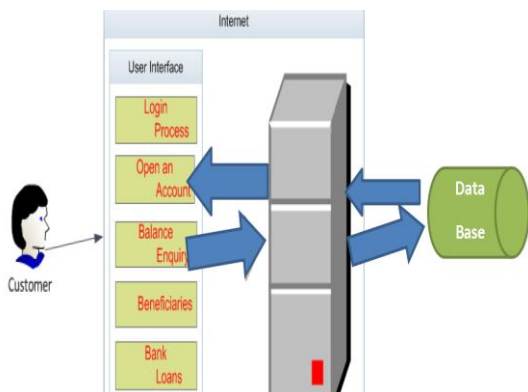


Fig2. Event Diagram

**Algorithmic Description:**

**Registration and opening new account:**

```
Function register()
{
  GetCustomer_information(name,surname....)
  Valid =CheckInformation()
  If (Valid) then {
    Accountnumber= Generate_AccountNum()
    Insert(Accountnumber,name,...)
    Display (success)
  }
  Else
  {
    Display_error (message)
  }
}
```

**Login\_process()**

```
Get_CustomerAuthentication(Accountnumber &&
password)
```

```
If (Accountnumber&&password=correct) then
{
  Display (transactions)
}
Elseif (Accountno&&password=wrong) then
{
  Display (Account Number or password are
mismatched)
}
Else
{
  Display (Register now)
}
Viewing_Balance()
```

```
Login_process()
Display (AccountBalance)
```

**Beneficiary()**

```
Beneficiary_process()
If (AccountBalance=sufficient)
{
  Make (payment)
  Display (Update_Account_balance)
}
Else
{
  Display (insufficient)
}
}
```

**III. TESTING:**

The previous chapter focused on the implementation of the application. It gave a detailed documentation of the code used and explained how each part works to make the application usable, functional and how each component contributes to the project. The testing chapter will discuss the usability and the functionality the system and then evaluate the results. The process of testing is documented for both the

user interface and the system. Software testing is an investigation conducted to provide stakeholders with information about the quality of the product or service under the test.

### Usability Testing:

We did basic usability testing with 7 participants from computer science and some information systems students. Most of the participants said it was easy and after seeing the demo they did not need spend much time learning it. We used some Specific questions using likert scale and open ended questions and for each function/feature, it was asked how the user experienced performing that task.

### Results

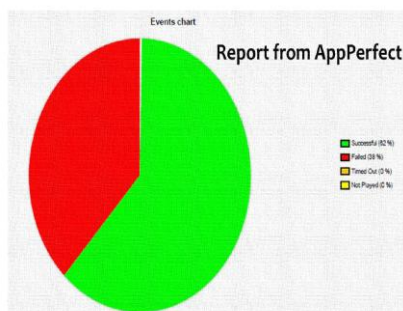


Fig.3: This report shows the functional testing system.

In above events chart clearly shows that the functional testing have 62% were successful while 38% were failed because of the untrusted ssl certificates

### IV. CONCLUSION

The Online Banking project can be enhanced in future, which will increase the credibility and reliability of the website. The enhancements could be done by

adding credit checks generating credit card statements. The enhancements that could be done are as follows:

It can be implemented fully on the Internet by registering a domain and buying a web space.

It can provide the Credit card bill payment option.

It can provide user loan facilities with interest rates in accordance with bank to.

It can be merged with other e-commerce websites for providing a gateway to pay through credit cards .

### V. ACKNOWLEDGEMENT

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