A report on Mini Project

COMPONENT

E-BANKING SYSTEM

Submitted in partial fulfilment of the requirement

For the award of the degree of

BACHELOR OF TECHNOLOGY

In

Computer Science and Engineering

Submitted by

PRIYA.BATTINA

17G21A0516

III B.TECH

Department of

Computer Science and Engineering

AUDISANKARA COLLEGE OF ENGINEERING AND TECHNOLOGY (AUTONOMOUS)
(Accredited by NBA&NAAC)

Approved by AICTE, Affiliated to JNTUA, Anantapur,

NH-5 Bypass Road, Gudur-524101.

Nellore (DT), Andhra Pradesh.

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DEPARTMENT OF

COMPUTER SCIENCE AND ENGINEERING

CERTIFICATE

This is to certify that the project report entitled **"E-BANKING SYSTEM"** is the bonafide work done by **PRIYA.BATTINA(17G21A0516)** in partial fulfillment of the requirements for the award of the degree of **Bachelor of Technology** in Computer Science & Engineering, from Jawaharlal Nehru Technological University Anantapur, Anantapuramu during the year 2017 - 2021.

UNDER THE GUIDANCEOF HEAD OF THE DEPARTMENT

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ASCET, GUDUR. ASCET, GUDUR.

ACKNOWLEDGEMENT

The satisfaction and elation that accompany the successful completion of any task would be incomplete without the mention of the people who have made it a possibility. It is our great privilege to express our gratitude and respect to all those

who have guided us and inspired us during the course of this project work.

First and foremost, we express our sincere gratitude to our honorable chairman **Dr. VANKI PENCHALAIAH,** who provided all facilities and necessary encouragement during the course of study.

We extend my gratitude and sincere thanks to our beloved Director **Dr. A. MOHAN BABU,** for motivating and providing necessary infrastructure and permitting us to complete the project.

We would like to express the sense of gratitude towards our Principal, Prof. **Dr.R.LOKANADAM,** our Head of the Department **DR.M.RAJAIAH,** our Project Coordinator **Mr. D.NAGARAJU,** Associate Professor and our internal guide **Mr.D.V.VARAPRASAD,** Associate Professor and for their support and encouragement for completion of this project.

Finally, we express our sincere thanks to all the teaching and non-teaching staff that guided and helped us to complete the project work successfully.

DECLARATION

I **PRIYA.BATTINA(17G21A0516)** hereby declare that the Project Work entitled **"E-BANKING SYSTEM"** done by us under the esteemed guidance of Head of the Department **DR.M.RAJAIAH** and is submitted in partial fulfilment of the requirements for the award of the Bachelor Degree in **COMPUTER SCIENCE & ENGINEERING.**

Date :

Place : Signature of the student

COMPONENT

E-BANKING SYSTEM

INDEX

ABSTRACT

This project aims at creation of a secure Internet 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. 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. We provide a real time environment for the existing system in the bank. We deal in the method transaction in the bank can be made faster and easier that is our project is an internet based computerized approach towards banking.

INTRODUCTION

E-Banking:

Electronic banking has many names like virtual banking, online banking, or internet banking. It is simply the use of electronic and telecommunications network for delivering various banking products and services. Through e-banking, a customer can access his account and conduct many transactions using his computer ormobile phone. In this article, we will look at the importance and types of e-banking services. It's fast, easy and puts you in complete control – you decide who to transfer funds, checking of the account details. The facility of internet banking is provided through banks and the customer must be an account holder with any bank to get the facility available for him/her.

Types of E-banking:

Banks offer various types of services through electronic banking platforms. These are of three types:

Level 1 – This is the basic level of service that banks offer through their websites. Through this service, the bank offers information about its products and services to customers. Further, some banks may receive and reply to queries through e-mail too.

Level 2 – In this level, banks allow their customers to submit instructions or applications for different services, check their account balance, etc. However, banks do not permit their customers

to doany fund-based transactions on their accounts.

Level 3 – In the third level, banks allow their customers to operate their accounts for funds transfer, bill payments, and purchase and redeem securities, etc.

Most traditional banks offer e-banking services as an additional method of providing service. Further, many new banks deliver banking services primarily through the internet or other electronic delivery channels. Also, some banks are 'internet only' banks without any physicalbranch anywhere in the country.

Therefore, banking websites are of two types: 1.

Informational Websites:These websites offer general information about the bank and its products and services to customers.

2. **Transactional Websites**:These websites allow customers to conduct transactions on the bank's website. Further, these transactions can range from a simple retail account balance inquiry to a large business-to-business funds transfer. The following table lists some common retail and wholesale e-banking services offered by banks and financial institutions:

Common E-Banking Services

Retail Services	Wholesale Services
Account management	Account management
Bill payment	Cash management
New account opening	Small business loan applications, approvals, or advances
Consumer wire transfers	Commercial wire transfers
Investment / Brokerage services	Business-to-business payments
Loan application and approval	Employee benefits / pension administration
Account aggregation	

Purpose:

The main reason behind developing this project is to reduce the problems which were faced by the accountholders, employees of the bank because of shortage of time and convenience due to the following reason:

Banks are usually only open Monday to Friday from 9 am to 5pm. These hours may be convenient for the bank tellers and workers but with a normal full time job, these hours are difficult for the customers of the banks .It were difficult for the bank to handle the several customers and their account management.

About Project:

Simple E-Banking System is developed using PHP, CSS, and JavaScript. Talking about the project, it contains the essential features. This project contains an admin side where Admin can

manage banking transactions like withdrawing, depositing and viewing balance. The Admin plays an important role in the management of the system.

In this project, the user has to perform all the main functions from the Admin side. A user can also register as a new user if he/she does not have an account.

About System:

The Admin has full control of the system, all the functions are to be performed from Admin panel. Here, the admin can set deposit certain amount easily. In order to set deposit amount, the user has to enter an amount and short description. For withdrawing amount, the user just has to provide an amount. All the transactions are stored permanently in the database. This project contains features of CRUD functions. Design of this project is pretty simple so that the user won't find any difficulties while working on it. Simple E-Banking System in PHP helps in easy management of various account amount within a short period of time.

Scope Of The Project:

1.Customer must have a valid User Id and password to login to the system.

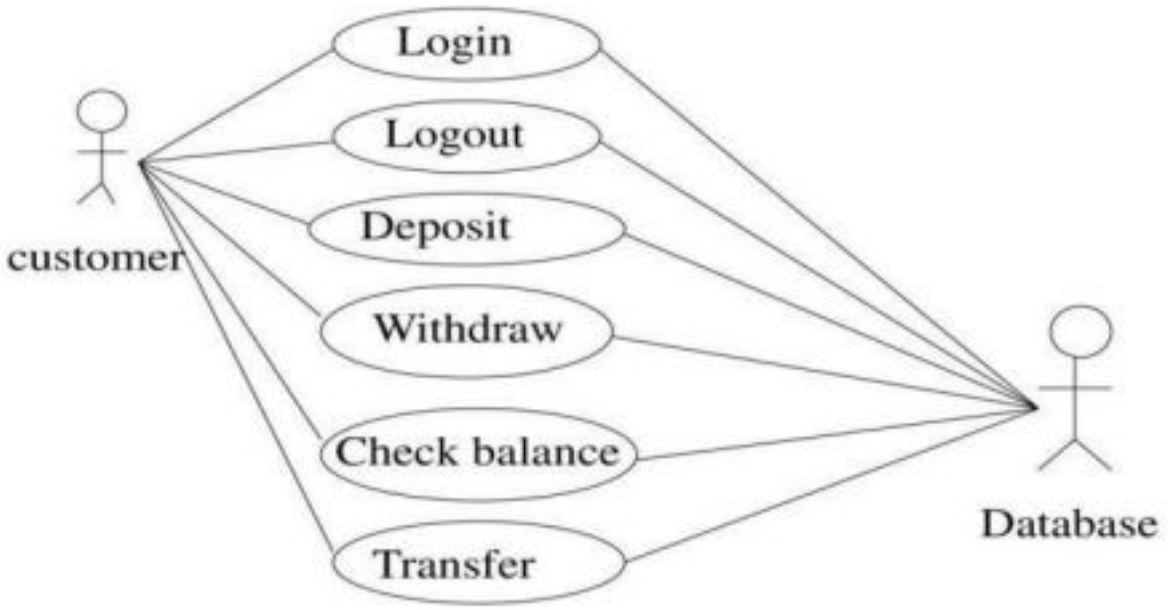
2.When an invalid password is entered a warning is given to the user that his password is wrong.

3.After the valid user logs in he/she is shown the list of accounts he has with the bank.

4. Administrator can take a back up of the database for every instance that is happening, periodically.

5.All users are authenticated to avail the services.

Use Case Diagram For E-Banking System:



System Configuration:

Software Requirements:

Client Side Requirements :

- Operating System : Any Window Version

- Internet Browser : Any internet browser which supports images and JavaScript.(Although text based browsers would also work)

Server Side Requirements:

- Operating System : Any Windows version
- Server : XAMPP
- Back End : MY SQL

Hardware Requirements:

- PROCESSOR : PENTIUM
- SPEED : >300 MHz
- MAIN MEMORY : 64 MB
- HDD : 4.3 GB
- FDD : 1.44

Tools/Environmment Using:

FrontEndTools : HTML,PHP,javascript,CSS

HTML:

HTML stands for Hyper Text Markup Language. It is used to design

web pages using markup language. HTML is the combination of Hypertext and Markup language. Hypertext defines the link between theweb pages. Markup language is used to define the text document within tag which defines the structure of web pages.It is a markup language which is used by the browser to manipulate text, images and other content to display it in required format.

PHP:

The term PHP is an acronym for PHP**: Hypertext Preprocessor**. PHP is a server-side scripting language designed specifically for web development. PHP can be easily embedded in HTML files and HTML codes can also be written in a PHP file. The thing that differentiates PHP with client-side language like HTML is, PHP codes are executed on the server whereas HTML codes are directly rendered on the browser.

JAVASCRIPT:

JavaScript is a lightweight, cross-platform and interpreted scripting language. It is well-known for the development of web pages, many

non-browser environments also use it. JavaScript can be used for Client-side developments as well as Server-side developments. JavaScript contains a standard library of objects, like Array, Date, and Math, and a core set of language elements like **operators**, **control structures**, and **statements**.

History of JavaScript: It was created in 1995 by Brendan Eich while he was an engineer at Netscape. It was originally going to be named LiveScript but was renamed. Unlike most programming languages, the JavaScript language has no concept of input or output. It is designed to run as a scripting language in a host environment, and it is up to the host environment to provide mechanisms for communicating with the outside world. The most common host environment is the browser.

- **Client-side:** It supplies objects to control a browser and its Document Object Model (DOM). Like if client-side extensions allow an application to place elements on an HTML form and respond to user events such as **mouse clicks**, **form input**, and **page navigation**.

  Use full libraries for the client-side

  are AngularJS, ReactJS, **VueJS** and so many others.

- **Server-side:** It supplies objects relevant to running JavaScript on a server. Like if the server-side extensions allow an application to communicate with a database, and provide continuity of information from one invocation to another of the application, or perform file manipulations on a server. The useful framework which is the most famous these days is node.js.

CSS:

CSS stands for Cascading Style Sheet, it is a style sheet language used to shape the HTML elements that will be displayed in the browsers as a web-page. Without using CSS, the website which has been created by using HTML, will look dull. Basically CSS gives the outer cover on any HTML elements. If you consider HTML as a skeleton of the web-page then the CSS will be the skin of the skeleton. The Internet media type (MIME type) of CSS is text/CSS. The CSS was developed by the World Wide Web Consortium (W3C) in the year of 1996. The CSS can be applied to HTML documents in different ways.

Database : MY SQL

MY SQL:

MySQL server is a open-source relational database management system which is a major support for web based applications. Databases and related tables are the main component of many websites and applications as the data is stored and exchanged over the web. Even all social networking websites mainly Facebook, Twitter and Google depends on MySQL data which are designed and optimized for such purpose. For all these reasons, MySQL server becomes the default choice for web applications.

MySQL server is used for data operations like querying, sorting, filtering, grouping, modifying and joining the tables. Before learning the commonly used queries.

Application Server : XAMPP

Web Server: Web server is a program which processes the network requests of the users and serves them with files that create web pages. This exchange takes place using Hypertext Transfer Protocol (HTTP). Basically, web servers are computers used to store HTTP files which makes a website and when a client requests a certain website, it

delivers the requested website to the client. For example, you want to open Facebook on your laptop and enter the URL in the search bar of google.

Now, the laptop will send an HTTP request to view the facebook webpage to another computer known as the webserver. This computer (webserver) contains all the files (usually in HTTP format) which make up the website like text, images, gif files, etc. After processing the request, the webserver will send the requested website-related files to your computer and then you can reach the website.

Different websites can be stored on the same or different web servers but that doesn't affect the actual website that you are seeing in your computer. The web server can be any software or hardware but is usually a software running on a computer. One web server can handle multiple users at any given time which is a necessity otherwise there had to be a web server for each user and considering the current world population, is nearly close to impossible. A web server is never disconnected from the internet because if it was, then it won't be able to receive any requests, and therefore cannot process them.

XAMPP:

XAMPP is the most popular software package which is used to set up a PHP development environment for web services by providing all the required software components. During the process of software deployment, most of the web servers use almost similar components, so use of **XAMPP** provides easy transition from local server to live server. **XAMPP** is a **AMP** stack which stands for Cross platform, **A**pache, **M**ySQL, **P**HP, **p**erl with some additional administrative software tools such as PHPMyAdmin (for database access), FileZilla FTP server, Mercury mail server and JSP Tomcat server.Other commonly known software packages like XAMPP are WAMP, LAMP, and others.

The XAMPP server is used to test PHP pages. It works as local server. It contains a MySQL database to manage or save data on a local server.

HTTP:

HTTP stands for Hyper Text Transfer Protocol.It is used to transfer

information over a computer network, and an integral part of today's internet.HTTP is the backbone of World Wide Web (WWW). It defines the format of messages through which Web Browsers (like Firefox, Chrome) and Web Servers communicate, whilst also defining how a web browser should respond to a particular web browser request.

Web Browser:

Web Browser is an Application program that displays a World wide web document. It usually uses the internet service to access the document.The web browser act as an interface between the server and the client and displays a web document to the client. It sends an HTTP request and gets an HTTP response. It stores the cookies for different websites. It should be installed on the client computer.

Examples Of Web Browsers:

1.Google Chrome

2.Mozilla Firefox

3.Internet Explorer

Features:

1.Login:

A login is a set of credentials used to authenticate a user. Most often, these consist of a username and password. However, a login may include other information, such as a PIN number, passcode, or passphrase. Some logins require a biometric identifier, such as a fingerprint or retina scan.

Logins are used by websites, computer applications, and mobile apps. They are a security measure designed to prevent unauthorized access to confidential data. When a login fails (i.e, the username and password combination does not match a user account), the user is disallowed access. Many systems block users from even trying to log

in after multiple failed login attempts.

Examples of logins include:

- **Operating system login** – Windows and Mac systems can be configured to require a login in order to use the computer after it is turned on or woken from sleep mode. A login may also be required to install software or modify system files.
- **Website login** – Webmail interfaces, financial websites, and many other sites require a username and password in order to access account information.
- **App store login** – App stores like Google Play and Apple's App Store require a login to download mobile apps, music, and other files.

2.Deposit:

A deposit is a financial term that means money held at a bank. A deposit is a transaction involving a transfer of money to another party for safekeeping. However, a deposit can refer to a portion of money used as security or collateral for the delivery of a good. **How a Deposit Works:**

A deposit encompasses two different meanings. One kind of deposit involves a transfer of funds to another party for safekeeping. Using this definition, deposit refers to the money an investor transfers into a savings or checking account held at a bank or credit union. In this

usage, the money deposited still belongs to the person or entity that deposited the money, and that person or entity can withdraw the money at any time, transfer it to another person's account, or use the money to purchase goods.

Often, a person must deposit a certain amount of money in order to open a new bank account, known as a minimum deposit. Depositing money into a typical checking account qualifies as a transaction deposit, which means that the funds are immediately available and liquid, without any delays.

The other definition of deposit refers to when a portion of funds is used as a security or collateral for the delivery of a good. Some contracts require a percentage of funds paid before the delivery as an act of good faith. For example, brokerage firms often require traders to make an initial margin deposit in order to enter into a new futures contract.

3.Withdraw:

A withdrawal involves removing funds from a bank account, savings plan, pension, or trust. In some cases, conditions must be met to withdraw funds without penalty,and penalty for early withdrawal usually arises when a clause in an investment contract is broken.

4.Check total balance:

Balance will be shown only to the account holders who were holding an account in their respective banks.If an account holder asks for available balance the server will check the details which were stored in the database of an account holder and display the balance details to an account holder.

PROJECT MODULES:

The Online Banking System consists of following modules:

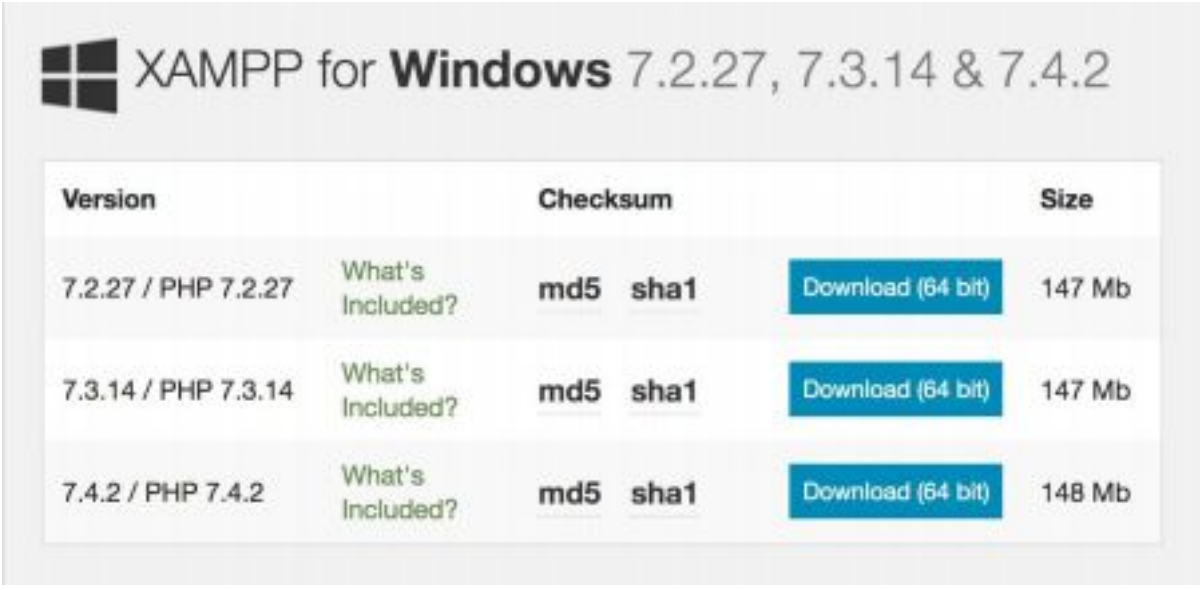
- **Login Process:** This module allows valid customers to access the functionalities provided by the bank.
- **Register Profile:** This module allows the customer to register profile of their account.
- **Withdraw Process:**This module helps the customer to withdraw amount from their accounts.
- **Balance Enquiry:** This module maintains the balance details of a particular account.

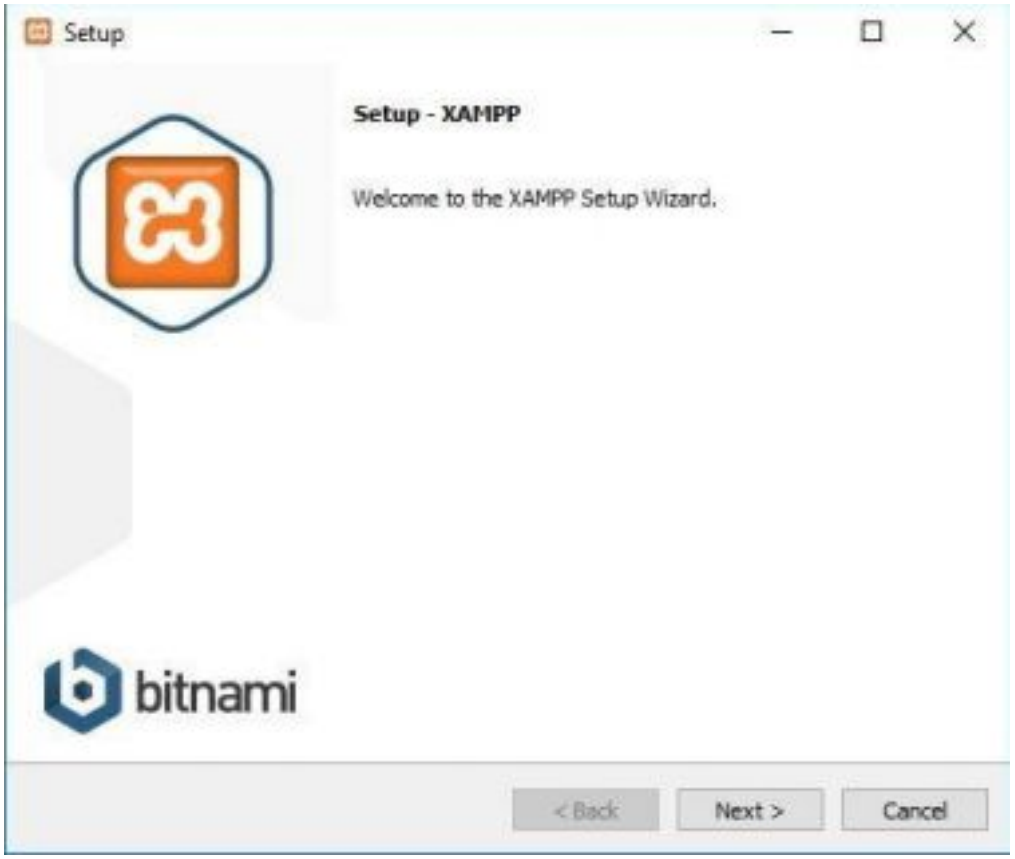
How To Install XAMPP Server:

Steps:

1. Click **XAMPP** for Windows. It's a grey button near the bottom of the page.

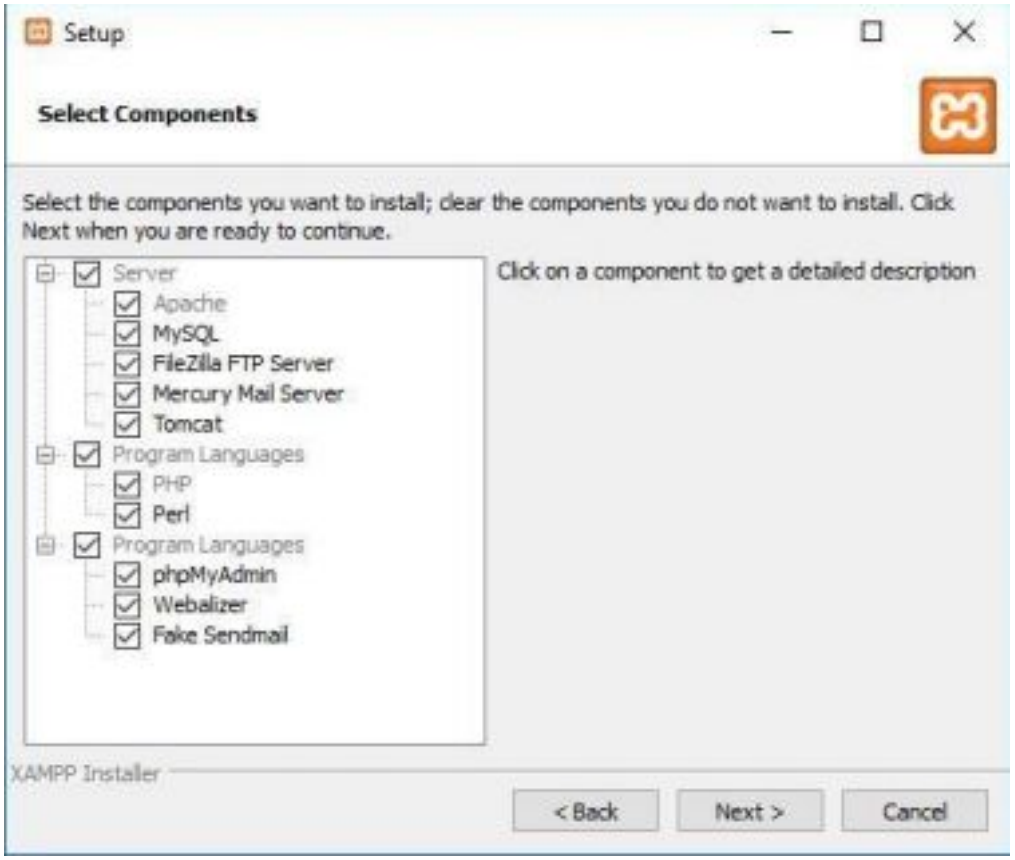
2.Double-click the downloaded file. This file should be named something like **xampp**-win 64-7.2. .





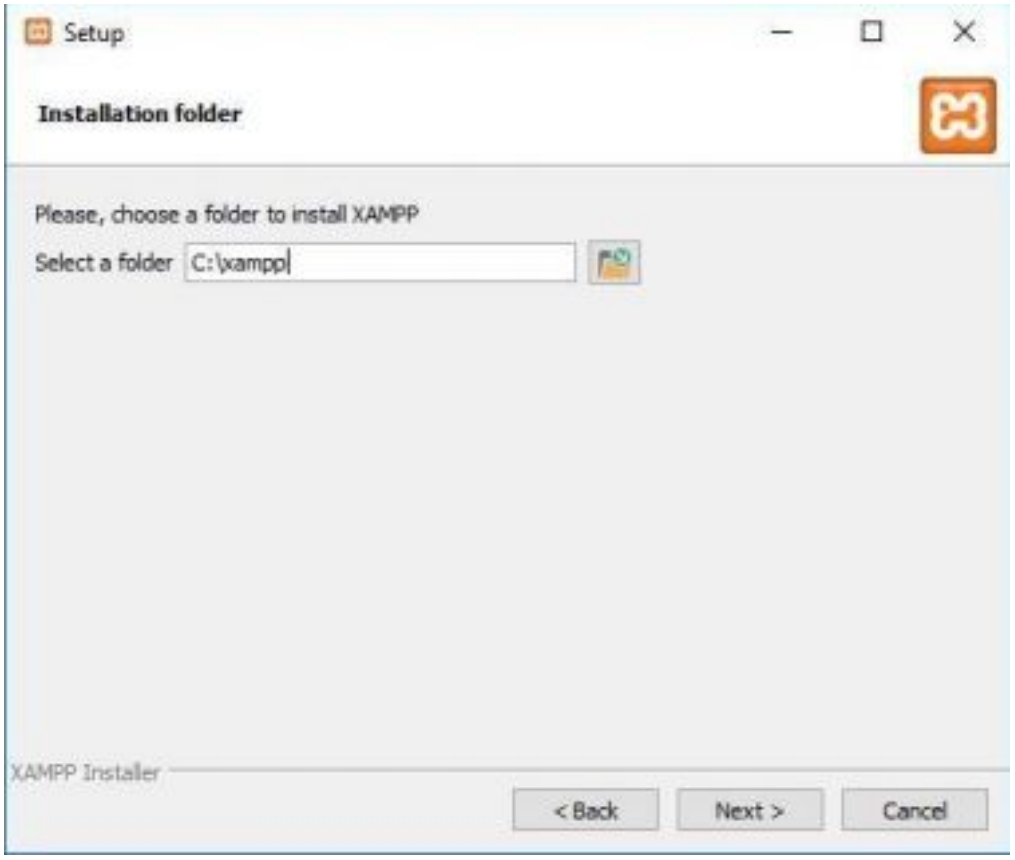
3.Click Next when prompted. ...

4.Select aspects of **XAMPP** to **install**. ...



Click Next. ...

5.Select an **installation** location. ...

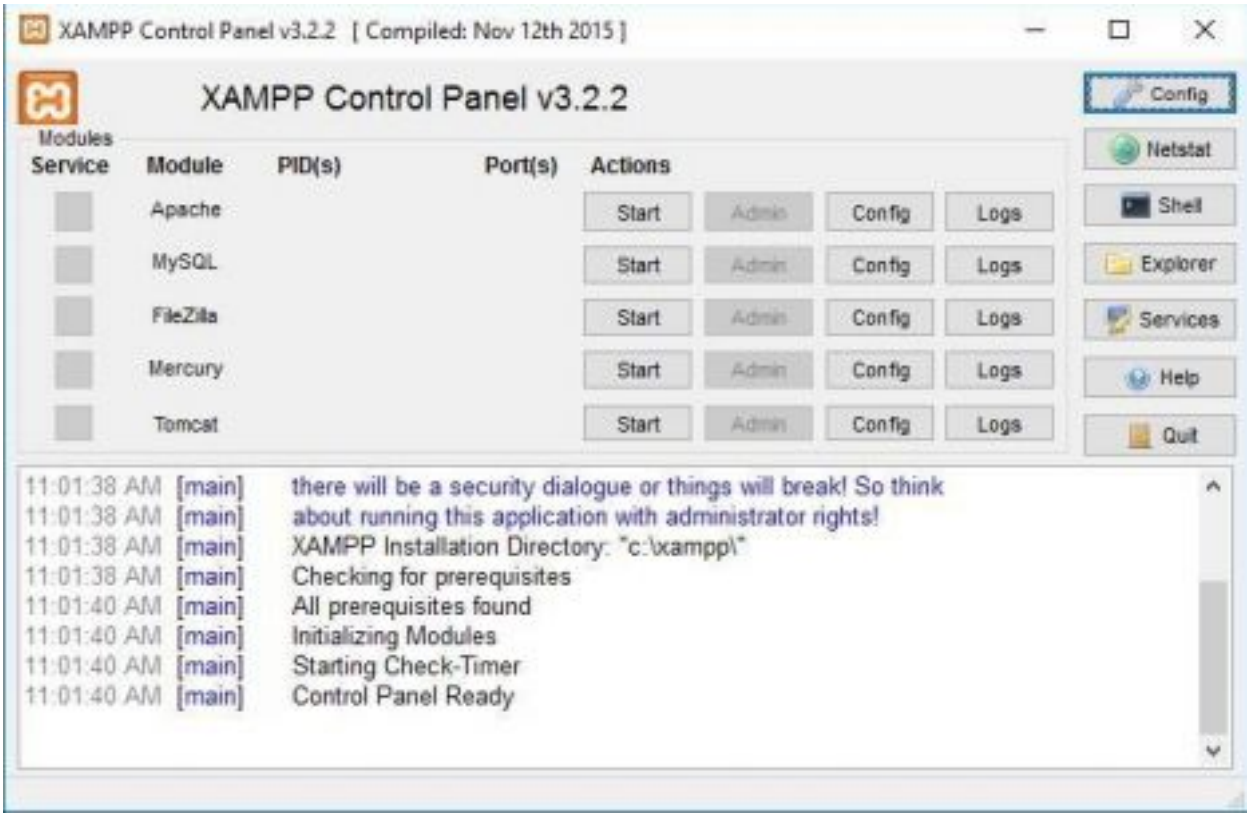


Click Next.

6.It is ready to install.

Click Finish.

7. Choose your language (English or German). 8. Click the Save button.



XAMPP is successfully installed on Client computer.

How To Run??

After Starting Apache and MySQL in XAMPP, follow these steps:

1stStep*:* Extract file.

2nd Step*:* Copy the main project folder 3rd

Step*:* Paste in xampp/htdocs/

Now Connecting Database:

4th Step*:* Open a browser and go to URL

“http://localhost/phpmyadmin/”

5th Step*:* Then, click on the databases tab

6th Step*:* Create a database naming “atm” and then click on the

import tab

7th Step*:* Click on browse file and select “atm.sql” file which is inside “DATABASE” folder

8th Step*:* Click on go.

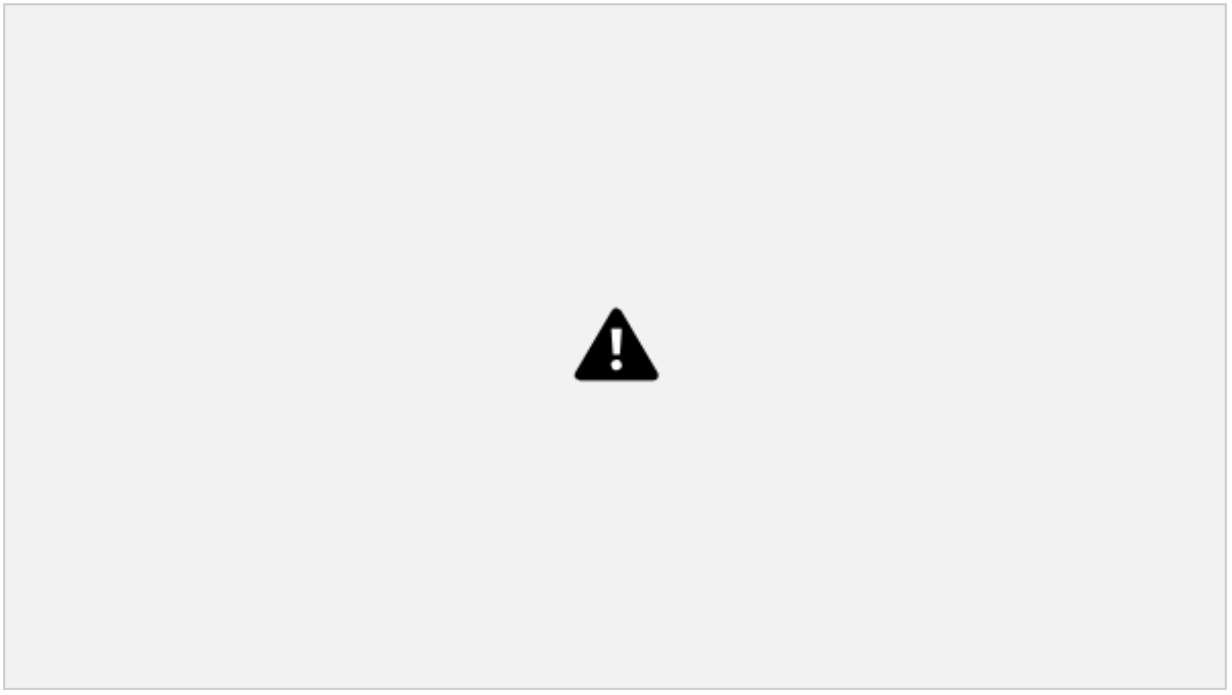
After Creating Database,

9th Step*:* Open a browser and go to URL

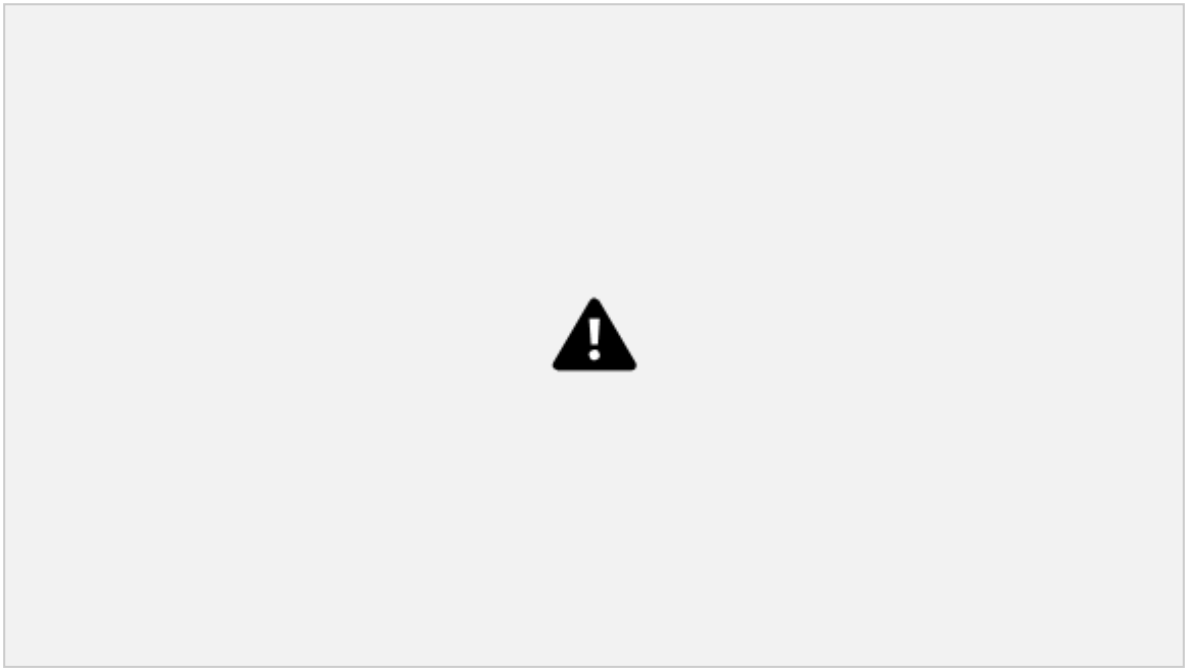
http://localhost/ebank/

User Interface:

It will display the user interface as follows. Here the user can register or login to their accounts.



Here the user can login into their account with their username and password.



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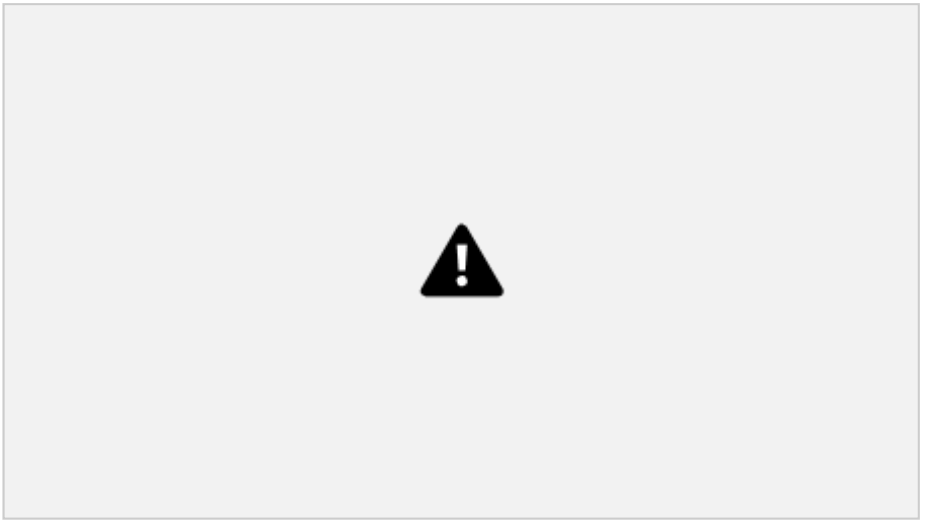
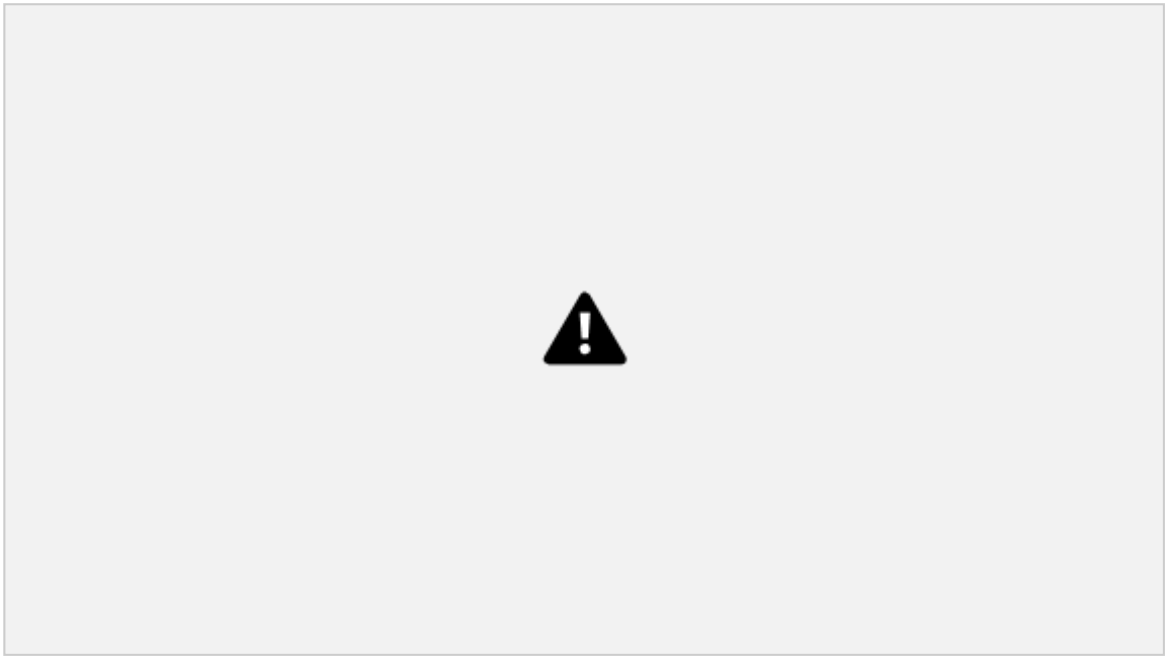
Here the user can deposit the amount how much he/she wants to deposit into their account.

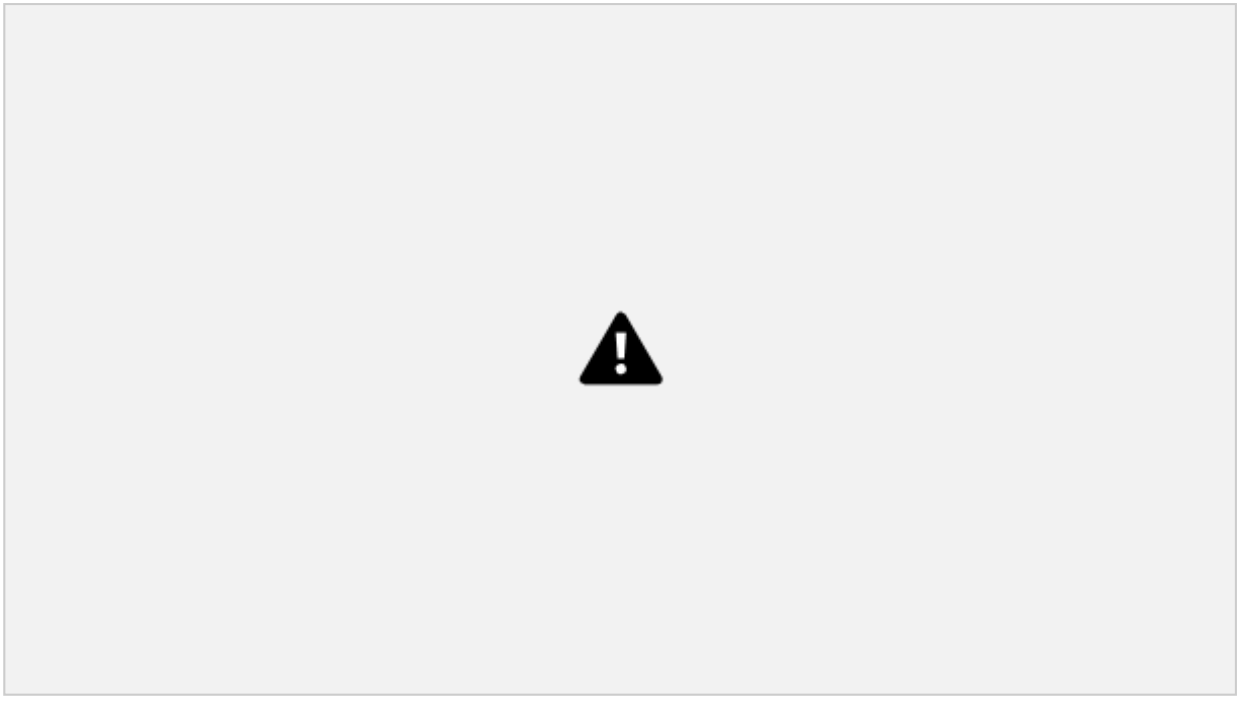


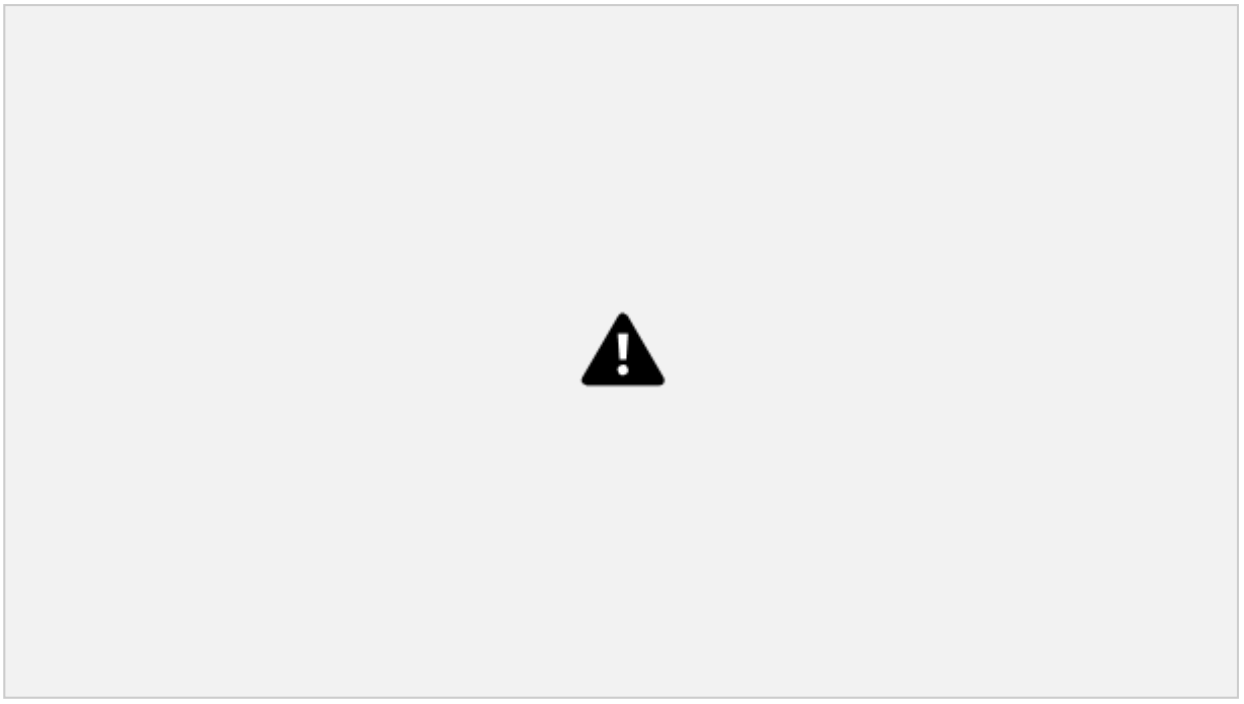
Here the user can view their balance details.



Here the user can withdraw the amount how much they need

or want.





Importance of E-Banking:

We will look at the importance of electronic banking for banks, individual customers, and businesses separately.

Banks:

1. Lesser transaction costs – electronic transactions are the cheapest modes of transaction

2. A reduced margin for human error – since the information is relayed electronically, there is no room for human error. 3. Lesser paperwork – digital records reduce paperwork and make the process easier to handle. Also, it is environment-friendly. 4. Reduced fixed costs – A lesser need for branches which translates into a lower fixed cost.

5. More loyal customers – since e-banking services are customer friendly, banks experience higher loyalty from its customers.

Customers:

1. Convenience – a customer can access his account and transact from anywhere 24x7x365.
2. Lower cost per transaction – since the customer does not have to visit the branch for every transaction, it saves him both time and money.
3. No geographical barriers – In traditional banking systems, 4. geographical distances could hamper certain banking transactions. However, with e-banking, geographical barriers are reduced.

Business:

1. **Account reviews** – Business owners and designated staff members can access the accounts quickly using an online banking interface. This allows them to review the account activity and also ensure the smooth functioning of the account.
2. **Better productivity** – Electronic banking improves productivity. It allows the automation of regular monthly payments and a host of other features to enhance the productivity of the business.
3. **Lower costs** – Usually, costs in banking relationships are based on the resources utilized. If a certain business requires more assistance with wire transfers, deposits, etc., then the bank charges it higher fees. With online banking, these expenses are minimized.
4. **Lesser errors** – Electronic banking helps reduce errors in regular

banking transactions. Bad handwriting, mistaken information, etc. can cause errors which can prove costly. Also, easy review of the account activity enhances the accuracy of financial transactions.

5. **Reduced fraud** – Electronic banking provides a digital footprint for all employees who have the right to modify banking activities. Therefore, the business has better visibility into its transactions making it difficult for any fraudsters to play mischief.

Risks of E-Banking:

Here are the risks of e-banking in detail:

Operational Risk:

Operation risk or transactional risk is the most common type of risk of e-banking. It includes:

- Incorrect transaction processing
- Compromises in the integrity of data, data privacy, and confidentiality
- Unauthorized access to the bank's systems
- Non-enforceability of contracts, etc.

Apart from technological errors, human factors like negligence (customers or employees), employee frauds, hackers, etc. are a potential source of operational risk of e-banking.These are as follows:

1. Security Risk

2. Legal Risk

3. Reputational Risk

4. System Architecture and Design

5. Money Laundering Risk

6. Cross-border Risks

E-banking in India:

In India, since 1997, when the ICICI Bank first offered internet banking services, today, most new-generation banks offer the same to their customers. In fact, all major banks provide e-banking services to their customers.

Popular services under e-banking in India:

- ATMs (Automated Teller Machines)
- Telephone Banking
- Electronic Clearing Cards
- Smart Cards
- EFT (Electronic Funds Transfer) System
- ECS (Electronic Clearing Services)
- Mobile Banking
- Internet Banking
- Telebanking
- Door-step Banking

Further, under Internet banking, the following services are available in India:

1. **Bill payment** – Every bank has a tie-up with different utility companies, service providers, insurance companies, etc. across the

   country. The banks use these tie-ups to offer online payment of bills (electricity, telephone, mobile phone, etc.). Also, most banks charge a nominal one-time registration fee for this service. Further, the customer can create a standing instruction to pay recurring bills automatically every month.

2. **Funds transfer** – A customer can transfer funds from his account to another with the same bank or even a different bank, anywhere in India. He needs to log in to his account, specify the payee's name, account number, his bank, and branch along with the transfer amount. The transfer is effected within a day orso.

3. **Investing** – Through electronic banking, a customer can open a fixed deposit with the bank online through funds transfer. Further, if a customer has a demat account and a linked bank account and trading account, he can buy or sell shares online too. Additionally, some banks allow customers to purchase and redeem mutual fund

units from their online platforms as well.

4. **Shopping** – With an e-banking service, a customer can purchase goods or services online and also pay for them using his account. Shopping at his fingertips.

FUTURE SCOPE OF THE PROJECT:

The present system is developing as web application. In future we would like to develop it for portable devices like cell phones, wap or GPRS connections.

CONCLUSION:

The Project SAFE AND SECURE INTERNET BANKING SYSTEM provides comprehensive electronic fund transfer and payment solutions that enable thousands of Citizens, Financial Institutions and hundreds of businesses the convenience of receiving and transferring their funds online. It's fast, easy and puts you in complete control – you decide who to transfer funds, checking of the account details. Receive and pay all your paper bills at one site – at your bank, credit union. Plus, you can enhance the convenience of transferring funds online by receiving your bills electronically, checking statuses of accounts and viewing the statements can possible with this system.

You can do this from one secure online location, in just a few minutes. Internet-Banking system provides the greater opportunity to interact with Account holder. But in regular system
there are no more interactions with an account holder or trustee. Authorities of Internet -Banking system can Provides the greater knowledge on Internet -Banking and they can effectively explain in broader sense. Before going to replace or planning for a new system it is essential to have thorough knowledge about the existing system along with estimation or determination of how computers can be best used to make its operations more effective. System analysis is a process of collecting and interpreting facts, diagnosing problems and using the information to recommend improvements to the system. Accumulation of information about the existing system is called System Study. Basically, system analysis is about understanding situation, not solving problems.