

# **INTERNSHIP AT SKILL-LYNC**



**A PROJECT REPORT**

**“ATM MANAGEMENT SYSTEM”**

**SUBMITTED BY**

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## INTRODUCTION

This project is based on developing an **ATM** (Automated Teller machine) using “**Java Programming Language**”. For that I used **GUI** (Graphical User Interface) in this development so that it will become more users friendly to interact.

Besides, I also added databases for user's records that are directly linked with this program. It is so called a heart of this program where all the functions depend on it.

## OBJECTIVE

The objective of my project is to ease some bank purposes of the people. In its User have options of deposit, withdraw, fast cash, mini statement, change pin, balance.

1. Easy to access
2. Instant work done
3. Easy to Signup
4. Easy to Perform Operations

# JFRAME

JFrame is a top-level container that provides a window on the screen. A frame is actually a base window on which other components rely, namely the menu bar, panels, labels, text fields, buttons, etc. Almost every other Swing application starts with the JFrame window.

**The purpose of JFrame :** The Java Swing JFrame class is the foundation for creating graphical Java applications. Without the frame, you can't perform any interactions. When you create a new instance of the JFrame, you can pass a title to the constructor or simply create an empty frame.

## How do JFrames work?

JFrame works like the main window where components like labels, buttons, text fields are added to create a GUI. Unlike Frame, JFrame has the option to hide or close the window with the help of `setDefaultCloseOperation(int)` method.

## What is a JFrame layout?

BorderLayout is the default layout for the window objects such as JFrame, JWindow, JDialog, JInternalFrame etc. BorderLayout arranges the components in the five regions. Four sides are referred to as north, south, east, and west.

## **HARDWARE REQUIREMENTS**

- ❖ **Processor** – Intel core I3 and above
- ❖ **RAM** – 4GB or Above
- ❖ **Hard Disk** – 50GB or Above
- ❖ **Input Device** – Keyboard, Mouse
- ❖ **Output Device** – Monitor or Laptop

## **SOFTWARE REQUIREMENTS**

- ❖ **Platforms** – Windows XP through Windows 10 and Linux.
- ❖ **Application Tools** – Apache NetBeans IDE 16.

## PROJECT EXPLANATIONS

In this documentation we have given explanations of how to interact successfully with this ATM (Automated Teller Machine). We have explained here step by step so that it will surely help users to become more user friendly with it. Below are our explanations:

### **First Things First:**

Before execute this program users need to do some works so that it will run properly into their system. First they need to make sure their system is having "JDK". If they don't have it then they can download from this below link:

<http://www.oracle.com/technetwork/java/javase/downloads/jdk7-downloads-1880260.html>

Depending on their system (Windows 64bit/32bit) they need to download and install. Then they need to add the "JAVA" files to their system "PATH" so that the system can run the program from CMD (Command Prompt). The path will show something like this

**"C:\ProgramFiles(x86)\Java\jre1.8.0\_25\bin;"**. Now just add the address besides the current path directory and save it.

The other way they can execute this program in to download the IDE (Integrated Development Environment) on their system. They can download ECLIPSE or NETBEANS depending on the windows (32bit/64bit). Below is the link:

### **NETBEANS:**

<https://netbeans.org/downloads/>

### **ECLIPSE:**

<http://www.eclipse.org/downloads/>

I developed this program using **"NETBEANS"**.

## Execution Procedures:

When user executes the program, they will see the startup GUI of this program. It has the icon and progress bar. User should wait until it loads.

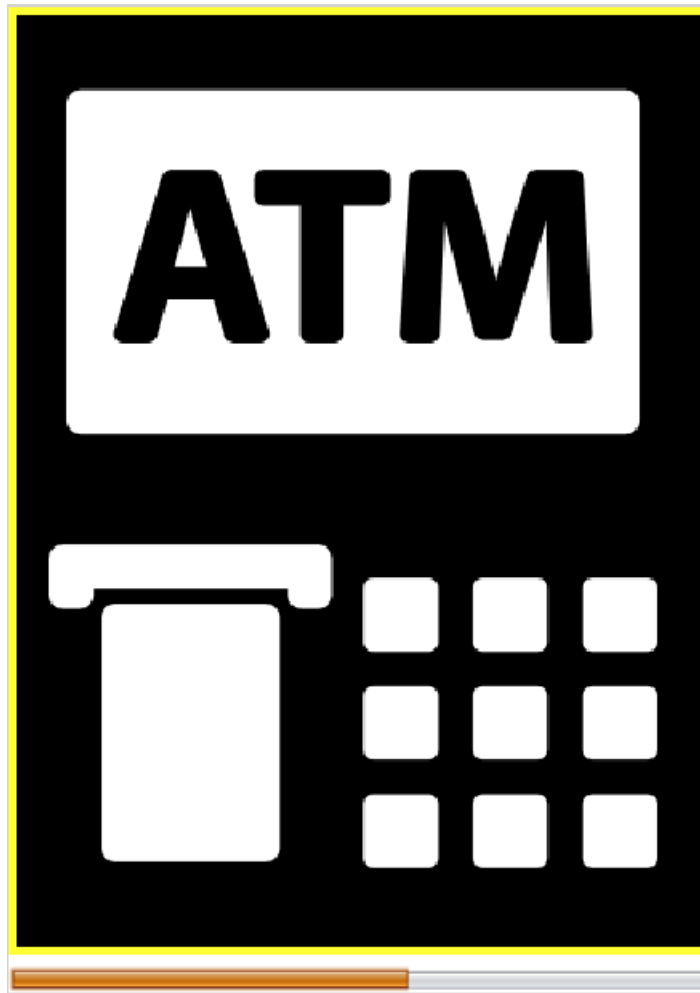
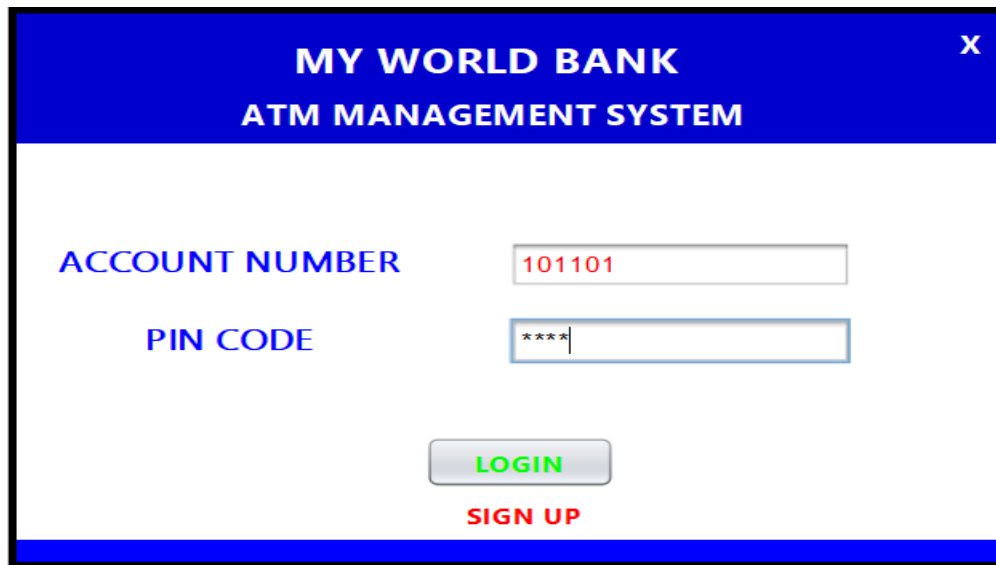


FIGURE 1: STARTUP GUI

## LOGIN AND SIGNUP FUNCTION:

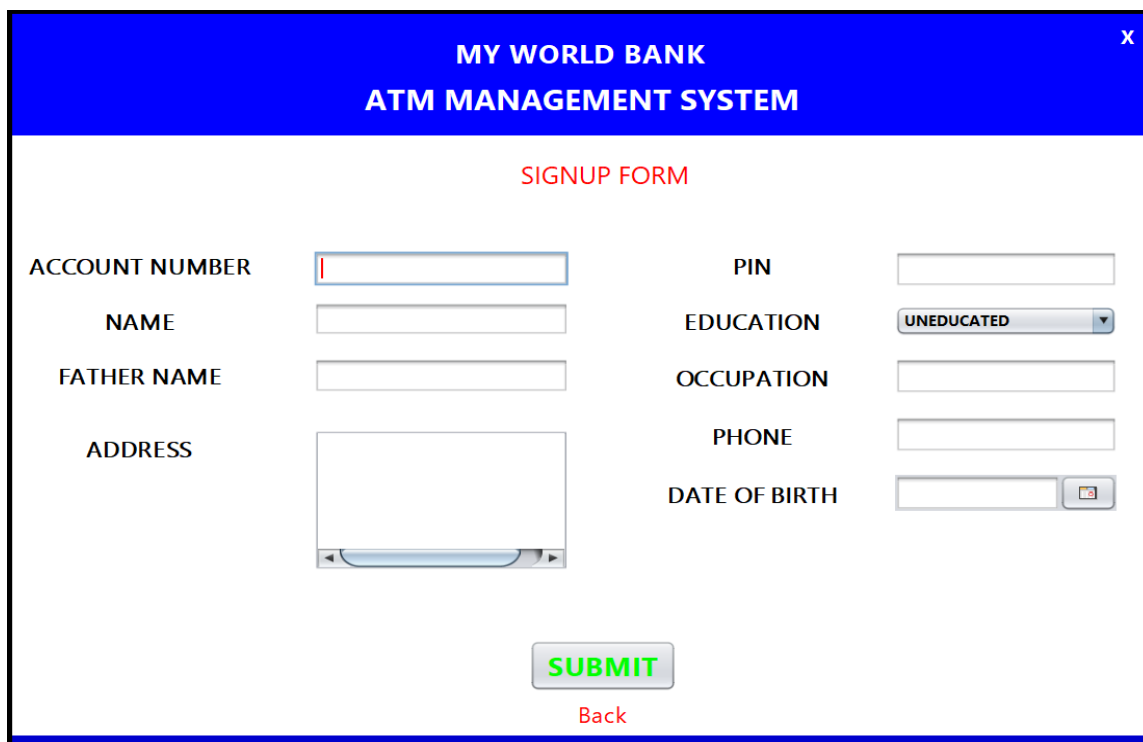


The screenshot shows a login window titled "MY WORLD BANK ATM MANAGEMENT SYSTEM" with a close button (X) in the top right corner. The interface has a blue header and footer. The main content area is white and contains two input fields: "ACCOUNT NUMBER" with the value "101101" and "PIN CODE" with masked characters "\*\*\*\*". Below these fields are two buttons: a green "LOGIN" button and a red "SIGN UP" button.

FIGURE 2: LOGIN

If the user already has an account in the bank. He should enter the account and pin and click the login button.

Note: user should enter valid details



The screenshot shows a signup window titled "MY WORLD BANK ATM MANAGEMENT SYSTEM" with a close button (X) in the top right corner. The interface has a blue header and footer. The main content area is white and contains the title "SIGNUP FORM" in red. Below the title are two columns of input fields: "ACCOUNT NUMBER", "NAME", "FATHER NAME", and "ADDRESS" on the left; and "PIN", "EDUCATION" (with a dropdown menu showing "UNEDUCATED"), "OCCUPATION", "PHONE", and "DATE OF BIRTH" on the right. At the bottom center is a green "SUBMIT" button, and at the bottom right is a red "Back" link.

FIGURE 3: SIGNUP FORM

If user don't have an account, he must create an account.

## MAINMENU:

The screenshot shows the 'MY WORLD BANK' main menu. At the top, there is a blue header bar with the bank's name and a close button 'X'. Below the header, the text 'Select Your Transaction Please' is displayed. The account number '101101' is shown in red. The menu consists of several buttons: 'DEPOSIT', 'WITH DRAW', 'FASTCASH', 'MINI STATEMENT', 'CHANGE PIN', and 'BALANCE'. A 'LOGOUT' link is also present at the bottom of the menu area. The footer of the screen displays 'MY WORLD BANK'.

MY WORLD BANK X

Select Your Transaction Please

Account Number : 101101

DEPOSIT WITH DRAW

FASTCASH MINI STATEMENT

CHANGE PIN BALANCE

LOGOUT

MY WORLD BANK

FIGURE 4: MAINMENU

After login, you enter the main menu where you can find multiple functions like deposit, withdraw, fast cash, mini statement, change pin, balance.

## Function (DEPOSIT):

The screenshot shows the 'DEPOSIT MONEY' screen within the 'MY WORLD BANK ATM MANAGEMENT SYSTEM'. The header bar is blue and contains the bank's name and a close button 'X'. The title 'DEPOSIT MONEY' is centered. Below it, the label 'AMOUNT:' is followed by a text input field containing the value '100'. A green 'DEPOSIT' button is located below the input field, and a red 'Back' link is positioned at the bottom of the screen.

MY WORLD BANK X

ATM MANAGEMENT SYSTEM

DEPOSIT MONEY

AMOUNT: 100

DEPOSIT

Back

FIGURE 5: DEPOSIT



To deposit into the account, click on the button “DEPOSIT”. It will show a deposit GUI on the screen. They need to enter the amount to deposit into their account.

### Function (WITHDRAW):



The screenshot shows a GUI for "MY WORLD BANK ATM MANAGEMENT SYSTEM". The title bar is blue with the text "MY WORLD BANK" and a close button "X". Below the title bar, the text "ATM MANAGEMENT SYSTEM" is displayed. The main content area is white and contains the following elements: the word "WITHDRAW" in black; "Your Balance : 163000" in blue and red; "AMOUNT : 100" in blue and red with a text input field containing "100"; a green "WITHDRAW" button; and a red "LOGOUT" button. A blue bar is at the bottom of the window.

FIGURE 6: WITHDRAW

To withdraw from their account, enter the amount and click on the button “WITHDRAW”. If the amount is greater than balance it will say “No Enough Balance”. If the Amount is less than balance then it will say “Withdraw Successful”.

### Function (FAST CASH):

MY WORLD BANK x

FAST CASH

Rs 100 Rs 500

Rs 1000 Rs.163000 Rs 2000

Rs 5000 Rs 10000

LOGOUT

MY WORLD BANK

FIGURE 7: FAST CASH

To withdraw small amount, it is the fast way. By clicking required amount their it will instantly withdraw the amount. If the amount is greater than balance it will say “No Enough Balance”. If the Amount is less than balance then it will say “Withdraw Successful”.

### Function (MINI STATEMENT):

MINI STATEMENT x

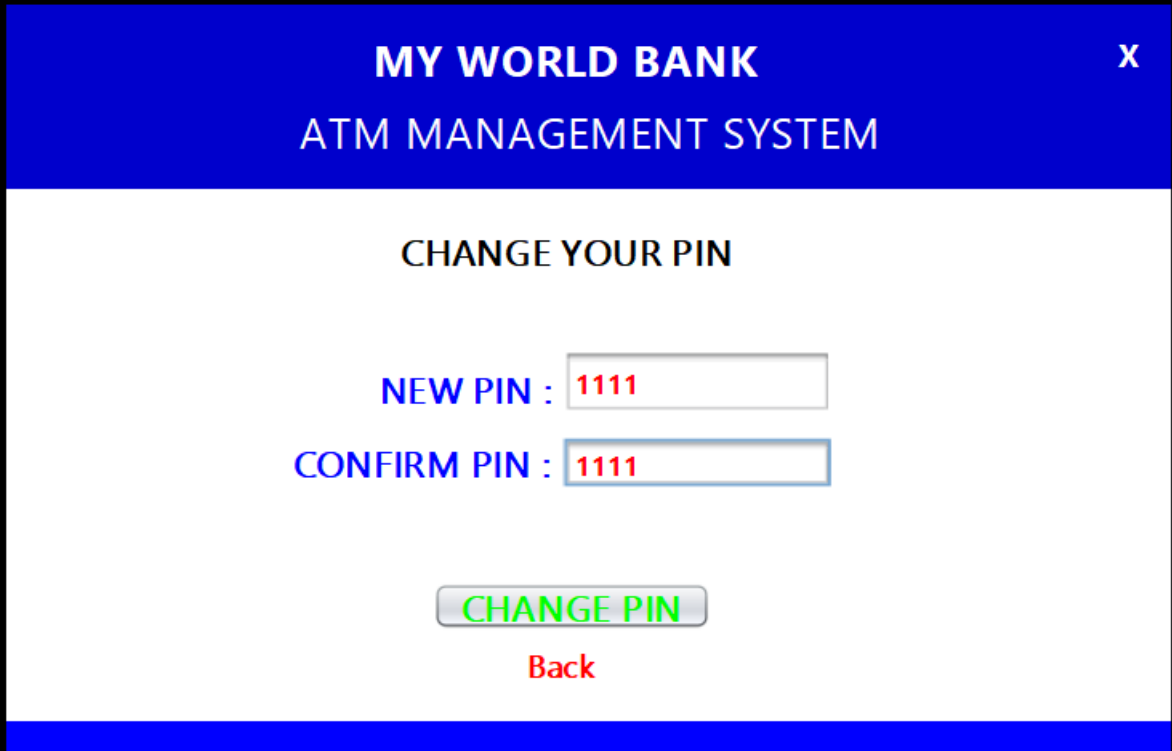
Tid	AccNum	Typee	TDate	Amount
1	101101	Deposit	19-03-2023	120
2	101101	Withdraw	19-03-2023	100
4	101101	Deposit	19-03-2023	100
5	101101	Deposit	19-03-2023	1000
6	101101	Deposit	19-03-2023	1000
7	101101	Deposit	19-03-2023	1000
10	101101	Withdraw	20-03-2023	700
11	101101	Deposit	20-03-2023	100000

EXIT

FIGURE 8: MINI STATEMENT

If you click the mini statement button it will give you the list of operations done like deposit or withdraw with details.

#### Function (CHANGE PIN):

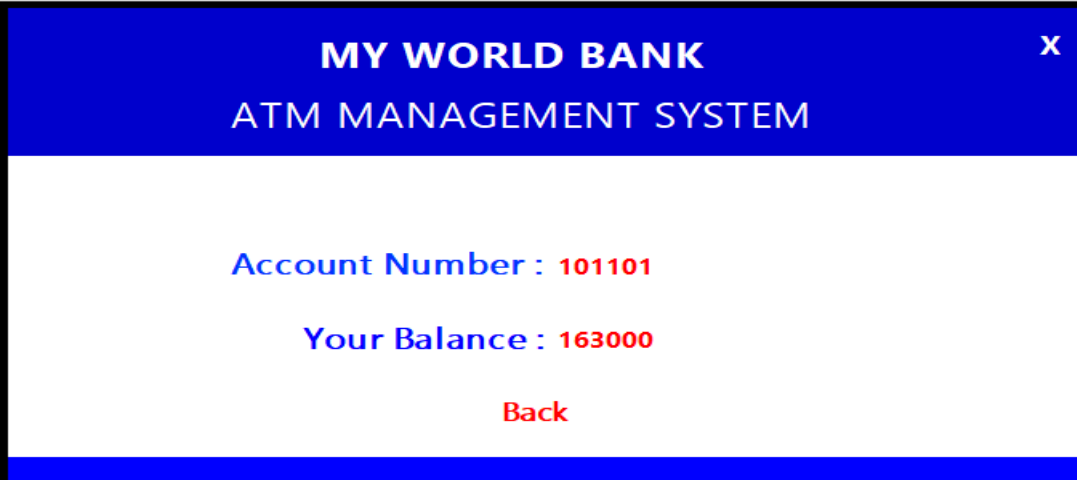


The screenshot shows a blue header bar with the text "MY WORLD BANK" and "ATM MANAGEMENT SYSTEM" in white, and a close button "X" in the top right corner. The main content area is white and contains the title "CHANGE YOUR PIN" in black. Below the title, there are two input fields: "NEW PIN :" followed by a text box containing "1111", and "CONFIRM PIN :" followed by a text box containing "1111". Below these fields is a green button labeled "CHANGE PIN" and a red text link labeled "Back".

FIGURE 9: CHANGE PIN

Here user can set his new pin and change it by “CHANGE PIN” button

#### Function (BALANCE):



The screenshot shows a blue header bar with the text "MY WORLD BANK" and "ATM MANAGEMENT SYSTEM" in white, and a close button "X" in the top right corner. The main content area is white and contains the text "Account Number : 101101" and "Your Balance : 163000" in blue. Below this text is a red text link labeled "Back".

FIGURE 10: BALANCE

If you click the balance button in main menu it will show the balance in your account.

## DATABASES:

### 1.Accounts Table:

Result Grid										Filter Rows:		Export:		Wrap Cell Content:	
	AccNo	AccName	FaName	DOB	Phone	Address	Education	Occupation	Balance	Pin					
	101101	Manoj	Srinivasa Rao	Sat Mar 04 15:40:33 IST 2023	9876543210	Hyderabad	UG	Developer	163000	1418					
	101102	Monkey D Luffy	Monkey D Dragon	Tue May 05 13:00:49 IST 1998	9874563210	East Blue	UG	Emperor of Sea	3001950	1418					
	101103	Portgas D Ace	Gol D Roger	Wed May 01 13:00:49 IST 1996	9865321470	East Blue	PG	1st Division Commander	2500000	1420					
	101104	Portgas D Shanks	Rocks D Xebec	Tue Jun 01 13:00:49 IST 1982	9786453120	West Blue	PHD	Emperor of sea	2000000	1421					
	101105	Yamato	Kaidou	Fri Jul 14 13:00:49 IST 2000	9731852460	Land of Wano	Diploma	Oni Princes	200000	1422					
	111111	Junie	junieeee	Fri Mar 03 18:24:07 IST 2023	7896541230	chennai	PHD	teacher	1000	1515					

FIGURE 11: Account Table

This is the table where the details of the account stored while signing up.

### 2.Transaction Table:

Tid	AccNum	Typee	TDate	Amount
1	101101	Deposit	19-03-2023	120
2	101101	Withdraw	19-03-2023	100
3	101102	Withdraw	19-03-2023	100
4	101101	Deposit	19-03-2023	100
5	101101	Deposit	19-03-2023	1000
6	101101	Deposit	19-03-2023	1000
7	101101	Deposit	19-03-2023	1000
8	101102	Withdraw	20-03-2023	9000
9	101102	Deposit	20-03-2023	1000
10	101101	Withdraw	20-03-2023	700
11	101101	Deposit	20-03-2023	100000
12	101102	Deposit	20-03-2023	10050

FIGURE 12: Transaction Table

This table stores every transaction history of all accounts in it.

## **TECHNICAL DETAIL'S**

- ❖ JAVA
- ❖ SQL
- ❖ JFrames
- ❖ JDBC Connection

## **CODING BEST PRACTICES USED**

- DRY (Do Not Repeat Yourself)
- Clean Readable and Organized code
- Comments describing functions and code blocks
- Re-used code as much as possible