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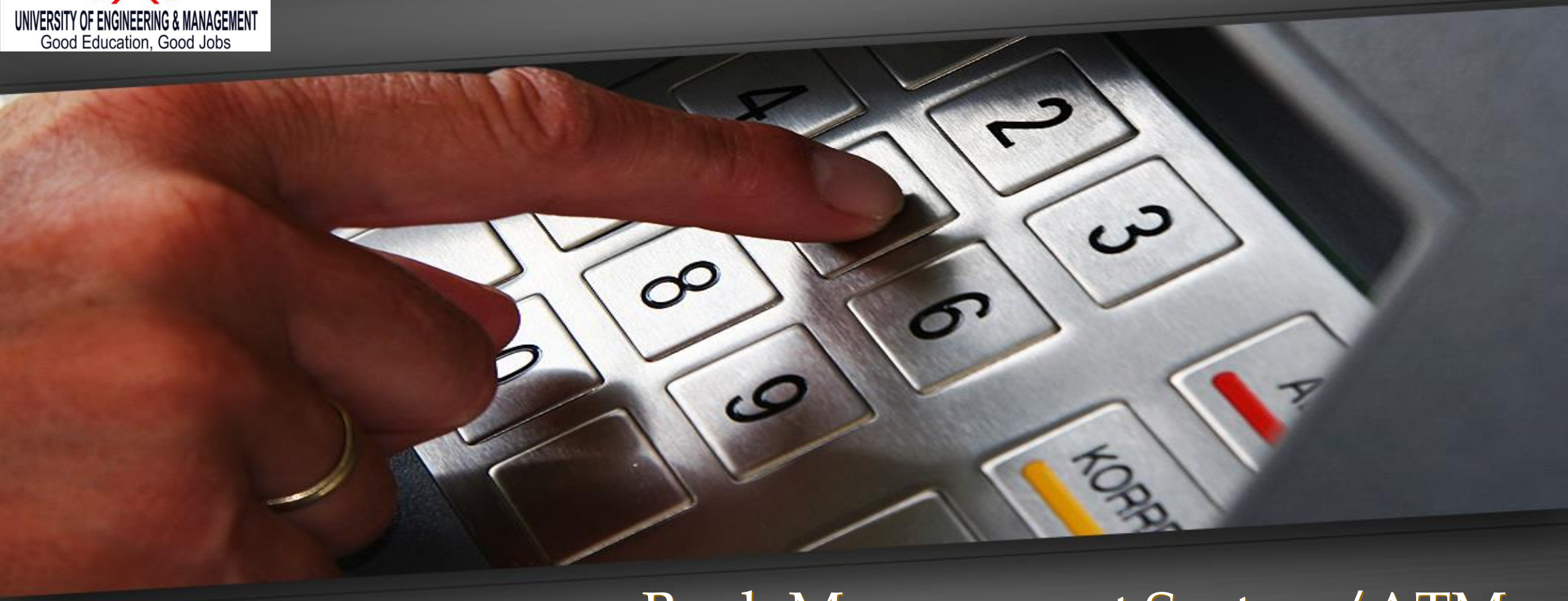

Bank Management System/ ATM Simulator

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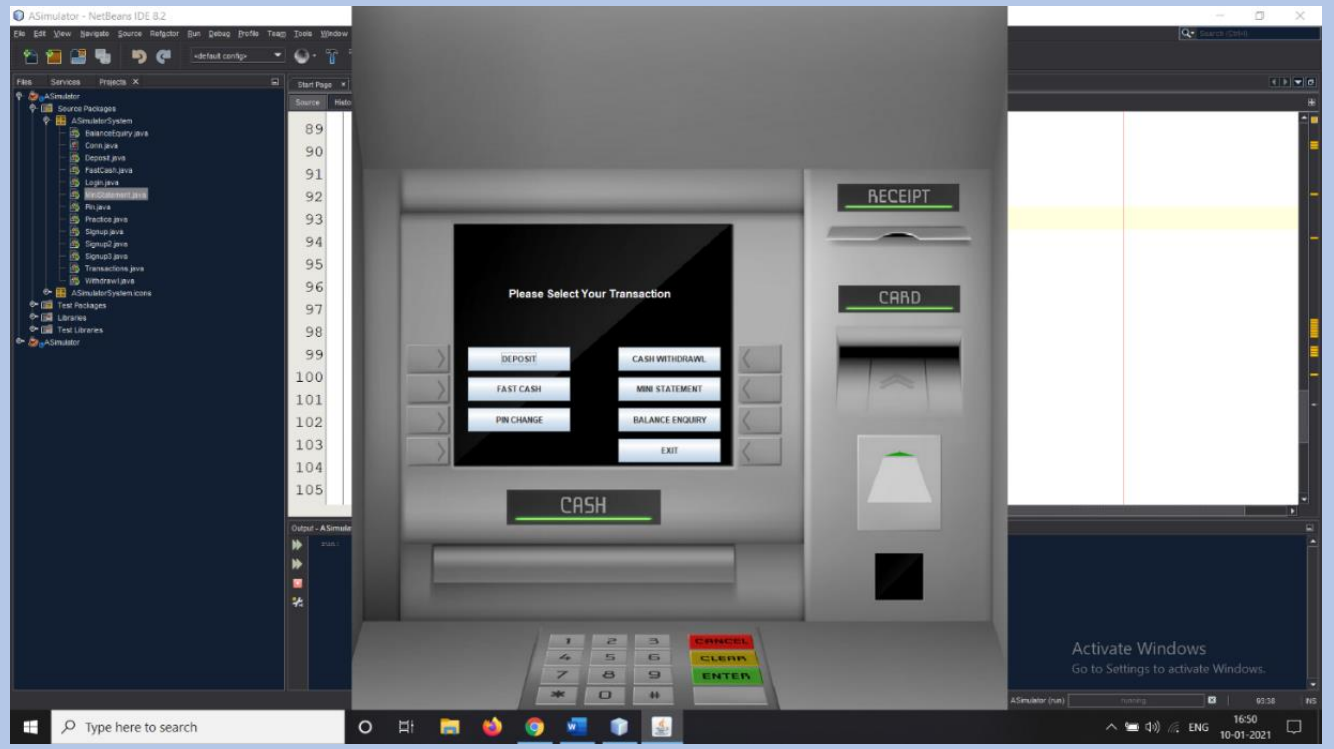
Overview:

This project depicts a Bank Management System/ATM Simulator.

It has a lot of features like setting up a user's account, logging on and then transaction features like money deposit, withdrawal, checking transaction statements, checking balance, changing the pin or quick money withdrawal.



Front End:

Java.swing has been used to make the interfaces in the front end.

Back End:

MySQL and other Java libraries have been used to create the database and other features of the back end.

Libraries used:

Java.awt: AWT stands for Abstract window toolkit is an application programming interface (API) for creating Graphical User Interface (GUI) in Java. It allows Java programmers to develop window-based applications. AWT provides various components like button, label, checkbox, etc. used as objects inside a java Program.

Java.awt.event: Provides interfaces and classes for dealing with different types of events fired by AWT components. Events are fired by event sources. An event listener registers with an event source to receive notifications about the events of a particular type. This package defines events and event listeners, as well as event listener adapters, which are convenience classes to make easier the process of writing event listeners.

Java.swing: It is used to create window-based applications which makes it suitable for developing lightweight desktop applications. Java Swing is built on top of an abstract windowing toolkit API purely written in Java programming language. Java Swing provides lightweight and platform-independent components, making it suitable and efficient in designing and developing desktop-based applications (systems).

Java.sql: Provides the API for accessing and processing data stored in a data source (usually a relational database) using the Java programming language.

JAR Files Used:

a. **JCalendar:** JCalendar is a Java date chooser bean for graphically picking a date. JCalendar is composed of several other Java beans, a JDayChooser, a JMonthChooser and a JYearChooser. All these beans have a locale property, provide several icons and their own locale property editor. So, they can easily be used in GUI builders. Also, part of the package is a JDateChooser, a bean composed of an IDateEditor (for direct date editing) and a button for opening a JCalendar for selecting the date.
b. **MySQL Connector:** MySQL Connectors provide connectivity to the MySQL server for client programs. APIs provide low-level access to MySQL resources using either the classic MySQL protocol or X Protocol. Both Connectors and the APIs enable you to connect and execute MySQL statements from another language or environment, including ODBC, Java (JDBC), C++, Python, Node.js, PHP, Perl, Ruby, and C.

Presenting a User-Centric Interface for Banking Operations :

Agenda:

- Login Page
- Signup Process (Signup, Signup2, Signup3)
- ATM Simulator

Login Page

❑ **Elements:**

- Username and Password Fields
- "Enter Your Account" Button
- "Create New Account" Link

❑ **Functionality:**

- User Authentication
- Navigation to Account Creation

Signup Process

- ❑ Fields:
  - Name, Contact Information
  - Basic Profile Details
- ❑ **Process:**
  - User Inputs Information
  - System Generates Unique Username

Account Creation Summary

- ❑ **Outcome:**
  - System Generates Username and Password
  - Confirmation Message to User
- ❑ **Benefits:**
  - Streamlined Account Setup
  - Enhanced User Experience

ATM Simulator Page

- ❑ **Elements:**
  - Debit and Credit Options
  - Change PIN Functionality
  - Transaction History

Five Essential Databases in MySQL

Agenda:

- Overview of the Financial Databases
- Importance of Bank Database
- Significance of Login Database
- Customer Data Collection: Signup, Signup2, and Signup3

Bank Database

- Capturing Debit and Credit Transactions
- Facilitating Financial Operations
- Ensuring Secure and Efficient Transaction Data Storage

Login Database

- Managing User Authentication
- Safeguarding Usernames and Passwords
- Key Component for System Security

Signup Databases (Signup, Signup2, Signup3)

- Collecting and Organizing Personal Information
- Supporting Customer Relationship Management
- Ensuring Compliance with Privacy Regulations


THANK YOU