

The background of the slide is a solid light brown color, decorated with a repeating pattern of dark brown coffee beans. Each bean has a lighter brown curved line running through its center, and they are all cast with a soft shadow to the bottom right.

ATM & BANK System

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Aim: The ATM-BANK project is used to access their bank accounts in order to make cash transactions and also create new accounts for new users. Whenever the user need to make transaction, they can enter their name and password.

Requirements:

- *JDK (Java SE 6 to Java SE 18) supported
- *Eclipse IDE
- *MySQL Workbench
- *MySQL JDBC DRIVER Type -4 (Native Protocol)

Note:

- Type-4 driver is also called native protocol driver. This driver interacts directly with the database. It does not require any native database library, which is why it is also known as Thin Driver.
- Does not require any native library and Middleware server, so no client-side or server-side installation.
- It is fully written in Java language, hence they are portable drivers.

JDBC Basic steps:

- Import the necessary classes
- Load the JDBC driver
- Identify the data source (Define the Connection URL)
- Establish the Connection
- Create a Statement Object
- Execute query string using Statement Object
- Retrieve data from the returned ResultSet Object

Why ATM:

- Secure
- Faster Cash Withdrawal
- Instant Balance inquiry
- Instant Deposit
- No need of third person(the programmed machine is enough)
- The data is stored directly in database

How it is implemented? :

- The application maintains the connection with the database using JDBC.
- The actions required to implement the ATM & Bank System are:
 - Import the built-in java packages needed for running the application.
 - Include declaration of all variables that are used in the application.
 - Design the classes and methods which are required for the application.

Establishing connection with database :

- Step 1:

Loading Drivers=>

- First load the appropriate driver. The JDBC driver is most preferred driver among developers. For loading the statement is:

```
Class.forName("com.mysql.cj.jdbc.Driver");
```

- Step 2:

Making the connection=>

- The getConnection() methods of the Driver Manager class is called to obtain the Connection object.

```
con=DriverManager.getConnection("jdbc:mysql://localhost:3306/  
Bank?characterEncoding=latin1","root","Poojith@13");
```

- Step 3:

Creating JDBC Statement=>

- Send your SQL query to the DBMS using Statement object

```
st=con.createStatement();
```

- Step 4:

Executing the Statement =>

- For executing the query , you have to obtain ResultSet object and call executeQuery() method.

```
rs=st.executeQuery("select * from customer where  
customerName='"+name+"' and customerPassword='"+password+"'");
```

- Step 5:

Closing the Connection and Statement Objects =>

- After completion of all steps you have to close the connection by calling close methods
- For close the connection:
`con.close();`
- For close the statements:
`St.close();`

Role of MySQL Database:

- The ATM & BANK system uses MySQL database for storing the customer Bank account details.
- In the customer table the customer id, customer name, customer password and customer age is recorded.
- In the account table Foreign key customer id from customer table is included as first column ,account type and balance money are included.
- The two tables are interrelated as we know by foreign key if a new user is entered then two tables should be updated simultaneously.

Conclusion:

- The Project of ATM & BANK System has been developed as best flexible and efficient within the available resources and time.
- From this presentation, one can observe that an ATM system is associated with the bank transactions of the consumers.
- It is fastest way to get money out of your account and vice versa.

Thank You