

User Instructions for Running the ATM System Code

1. Install Dependencies

Before running the code, make sure you have the required Python libraries installed:

- **Tkinter** for the GUI (usually comes pre-installed with Python).

MySQL Connector to interact with the database:

You can install it using pip:

pip install mysql-connector-python

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Pillow for image handling:

pip install Pillow

-

FPDF for generating PDF receipts:

pip install fpdf

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2. Set Up MySQL Database

- **Create a MySQL Database:** The code uses a database called **paysrm** to store user information (e.g., account ID, name, password, and balance).

Ensure that MySQL is installed and running on your system. Use the following commands to create the database and table:

```
CREATE DATABASE IF NOT EXISTS paysrm;
```

```
USE paysrm;
```

```
CREATE TABLE IF NOT EXISTS paysrm (
```

```
    accid INT(10) PRIMARY KEY,
```

```
    name VARCHAR(30),
```

```
    password CHAR(20),
```

```
    balance CHAR(30)
```

```
);
```

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- **MySQL User Configuration:** Ensure that your MySQL user (**root** in this case) has proper access to the database with the password **Goodluck#04*** (or modify the password as required).

3. Prepare the Project Files

Ensure that the following files are available and correctly placed:

- **Images:** The project requires certain image files (e.g., `abc.png`, `bankk.png`, `login_final.png`, `register_final.png`, and `about.png`) for GUI buttons and backgrounds. Place these images in the directory specified in the code (`E:\\PYTHON PROJECTS SOURCE CODE\\ATM-GROUP PROJECT\\IMAGES\\`).
- **Python Script:** The Python script with the code you've shared should be located in the same project folder.

4. Running the Code

- **Launch the Python Script:** After setting up the database and images, run the Python script. The `main_screen()` function will launch the main window for registration or login.

5. User Interaction Flow

- **Registration:**
 - When the program starts, the user will see the main screen with two options: **Login** and **Register**.
 - **Register:** Clicking the **Register** button will open the registration window.
 - The user will be shown a randomly generated account number (which is used as the account ID) and will be asked to enter their name and a pin (password).
 - Upon submitting the details, the user's data is saved in the database, and the account is created.
- **Login:**
 - If the user already has an account, they can click the **Login** button.
 - They will be prompted to enter their account number (username) and pin (password).
 - Upon successful login, the user is authenticated, and their balance is fetched from the database.
- **Transaction:**
 - After login, the user can perform transactions (like withdrawals, balance checks, etc.) in the next steps (not shown in this snippet).

6. Features of the Code:

- **PDF Receipt Generation:**
 - The system generates a PDF receipt for withdrawal transactions using the `FPDF` library. This includes the name, account number, amount, date, and time of the transaction.
- **Account Security:**
 - The user's password is stored directly in the database as plain text. For improved security, you should consider hashing passwords before storing them.
- **Account Validation:**

- During login, the system checks whether the entered account number exists and if the password is correct. If the credentials are incorrect, appropriate warning messages are displayed.

7. Troubleshooting Tips:

- **Database Connection Issues:** Ensure that MySQL is running and the connection credentials (username, password) are correct.
 - **Missing Images:** Ensure all image paths are correct and the image files exist in the specified directory.
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Short Code Instructions in Simple Terms:

1. **Libraries:** The code requires `tkinter` for the GUI, `mysql-connector` for connecting to MySQL, `fpdf` for creating PDF receipts, and `Pillow` for handling images.
2. **MySQL Database:** The code creates and uses a database called `paysrm`. You need to set up this database and table using MySQL.
3. **Main Screen:** The main screen has options to either **Login** or **Register**.
 - **Register:** Creates a new account with a randomly generated account number.
 - **Login:** Allows the user to log in using their account number and password.
4. **PDF Receipt:** When a withdrawal is made, a receipt is generated in PDF format with the transaction details.
5. **Security:** Passwords are stored in plain text (consider hashing them for better security).

Let me know if you need help with specific parts of the setup!