

EMPLOYEE MANGEMENT SYSTEM

OVERVIEW:

```
Command Prompt - psql -h localhost -p 5432 -U postgres employees
Microsoft Windows [Version 10.0.19045.3448]
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C:\Users\pc>psql -h localhost -p 5432 -U postgres employees
Password for user postgres:
psql (11.21)
WARNING: Console code page (437) differs from Windows code page (1252)
        8-bit characters might not work correctly. See psql reference
        page "Notes for Windows users" for details.
Type "help" for help.

employees=# \c employees
You are now connected to database "employees" as user "postgres".
employees=# SELECT * FROM employee;
 id | first_name | last_name | gender | title | department | email | date_of_joining
-----+-----+-----+-----+-----+-----+-----+-----
  1 | Muzzamil  | Anwar    | Male   | Python developer | Backend    | muzzamil.anwar@darvis.com | 2021-09-30
  2 | Muhammad  | Usman    | Male   | Lead Python developer | Backend    | muhammad.usman@darvis.com | 2019-05-25
  3 | Sami      | Ullah    | Male   | AI training engineer | Annotation | sami.ullah@darvis.com | 2023-03-08
  4 | Mubashir  | Ali      | Male   | Python Developer | Backend    | mubashir.ali@darvis.com | 2021-09-08
  5 | Anne      | Smith    | female | Human resource executive | HR         | anne.smith@darvis.com | 2022-10-05
  6 | Alison    | Jack     | female | SQA Engineer | Quality Assurance | alison.jack@darvis.com | 2023-11-19
  7 | Ayesha    | Khalid   | female | AI training engineer | Annotation | ayesha.khalid@darvis.com | 2020-12-08
  8 | Michael   | Smith    | male   | SQA Engineer | Quality Assurance | Micheal.smith@darvis.com | 2021-11-19
  9 | Maryam    | Khan     | female | Android developer | Mobile App Development | maryam.khan@darvis.com | 2020-04-17
 10 | Ahmed     | Khan     | male   | iOS developer | Mobile App Development | ahmed.khan@darvis.com | 2020-07-21
(10 rows)

employees=# SELECT * FROM users;
 id | username | password
-----+-----+-----
  1 | samiullah | pakistan123
(1 row)
```

LOGIN CREDENTIALS FOR
EMPLOYEE MANGEMENT
SYSTEM

EMPLOYEE MANAGEMENT SYSTEM



Sign In

Username:

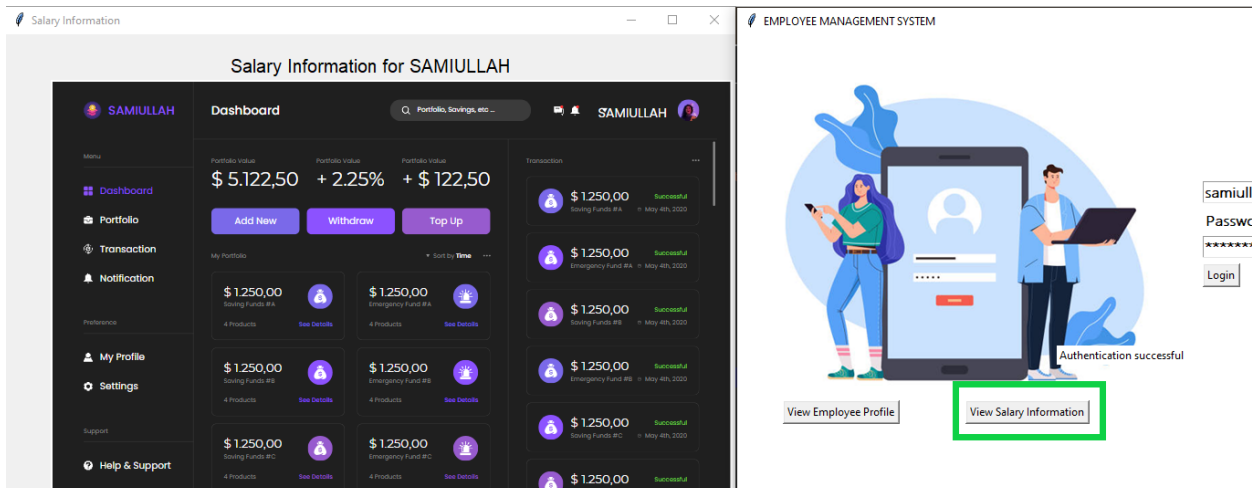
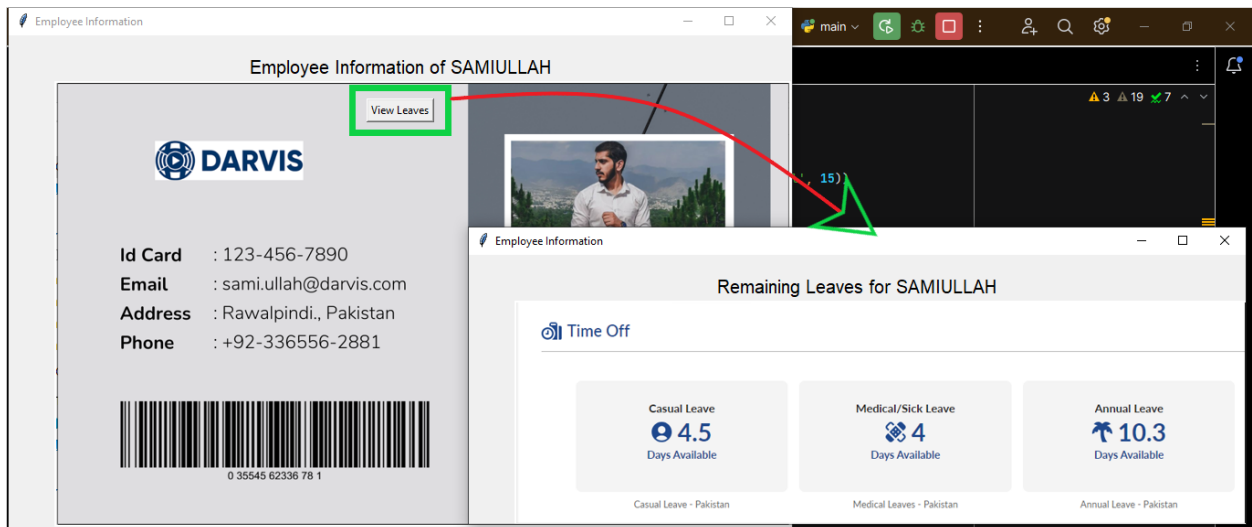
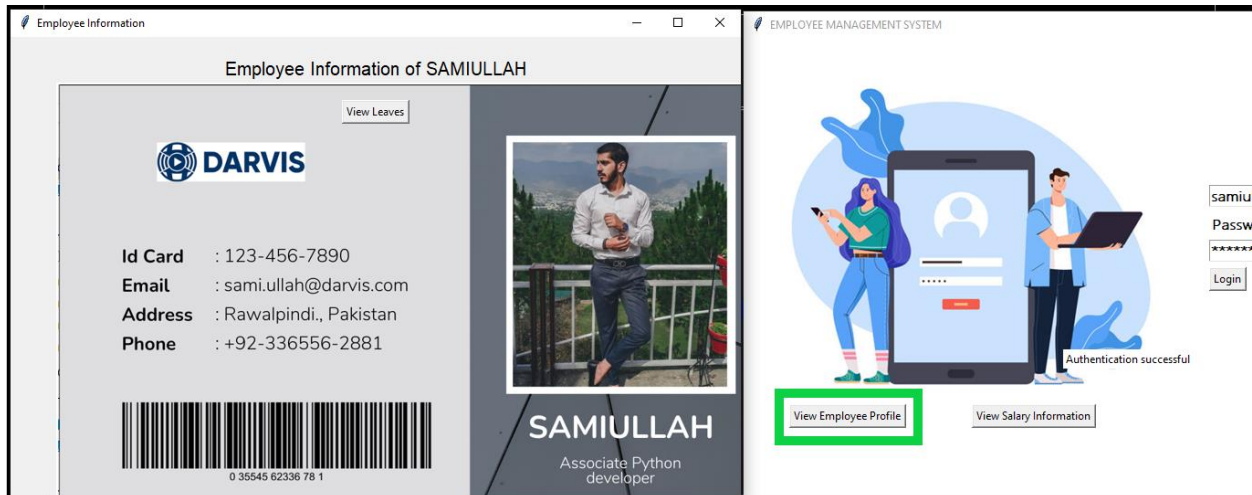
Password:

Login

Authentication successful

View Employee Profile

View Salary Information



System Requirements:

- ❖ Ensure that you have Python installed on your system.
- ❖ You can download it from Python's official website.
- ❖ You should also have the psycpg2 library installed. You can install it using pip with the following command: `pip install psycpg2`
- ❖ Make sure you have the required image files (login.png, employee_profile.png, leaves.PNG, and salaryslip.PNG) in the specified directory (C:/Users/pc/Desktop/Python_Final_Project/) or update the file paths accordingly in the code.

User Guide:

- Logging In: Open the authentication system application.
- Enter your username and password in the respective fields.
- Click the "Login" button to authenticate.
- Authentication Result: After clicking the "Login" button, you will receive one of the following messages: "Authentication successful" if the credentials are correct.
- "Authentication failed" if the credentials are incorrect. "Database connection error" if there's an issue connecting to the database.
- Viewing Employee Profile: If authentication is successful, the "View Employee Profile" button will become enabled. Click this button to view the employee profile, including an image and additional information.
- Viewing Salary Information: If authentication is successful, the "View Salary Information" button will become enabled. Click this button to view salary information, including an image and additional details.
- Viewing Leaves Information: After clicking the "View Leaves" button in the employee profile window, you can view remaining leaves information.

Code Documentation:

- ✚ Code Structure: The code is structured as a Python application that uses the Tkinter library for the graphical user interface (GUI). It connects to a PostgreSQL database to authenticate users and display employee-related information.
- ✚ Function Descriptions:
 - **verify_credentials():** This function is responsible for verifying user credentials. It connects to the PostgreSQL database and checks if the entered username and password are correct.
 - **view_profile():** This function is called when the "View Employee Profile" button is clicked. It opens a new window to display the employee's profile information.
 - **View_leaves():** This function is called when the "View Leaves" button is clicked within the employee profile window. It opens a new window to display leaves-related information.
 - **view_salary():** This function is called when the "View Salary Information" button is clicked. It opens a new window to display salary-related information.

- ✚ Global Variables: img1, img2, and img0: These global variables are used to store image objects that are displayed in various parts of the GUI. 4. File Paths: Image files such as 'login.png', 'employee_profile.png', 'leaves.PNG', and 'salaryslip.PNG' should be located in the specified directory ('C:/Users/pc/Desktop/Python_Final_Project/').
- ✚ Database Configuration: The code is configured to connect to a PostgreSQL database with the following parameters: database name ('employees'), username ('postgres'), password ('Samiullah17+'), host ('localhost'), and port ('5432'). Modify these parameters if you need to connect to a different database.
- ✚ Error Handling: Errors are handled using try-except blocks. Database connection errors are caught and result in the message "Database connection error" being displayed.
- ✚ External Libraries: The code uses the psycopg2 library for PostgreSQL database connectivity and the tkinter library for GUI development. Please note that this documentation is based on the code you provided and may need to be expanded and customized based on the specific features and functionality of your application. Additionally, it's essential to provide more detailed information about the database schema, data structures, and any additional functionalities in your actual application.

