

20CS3017 DBMS PROJECT REPORT

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-Project Title: RGIPT Entry/Exit Database

Technologies Used:

- MYSQL(For Database)
- PYTHON
- PYTHON TKINTER(For front-end)
- PYTHON MYSQL CONNECTOR(for making a connection with MYSQL)

Working of Project:

In the beginning, the code will check whether the welcome_to_rgipt and employee table are present in the rgipt_entry database or not if not present then these tables will be created automatically.

Front End:

The GUI of this project is made using the PYTHON TKINTER package which is the standard Python interface to the Tcl/Tk GUI toolkit.

NOTE: This project consists of two tables welcome_to_rgipt and employee.

Functions and Classes involved in the front end part:

The Login class is used to create a login portal for this project, this class consists of many functions:

- **def __init__(self, root):** This function will create the login window with two text boxes that allow the user to enter their Username and Password, login window also consists of a login button and forget password/username button.
- **def login_function(self):** This function is involved in the login action of the login button. This function will check in the database

whether a User with entered Username and Password exists or not. If the user is present in the employee table then the `def openwindow()` function will be called and that function will open the main window which allows the user to make an entry in the database.

- **`def openwindow():`** This function will create the main entry window. This function contains several other functions that are involved in the working of insert, delete, update, get, and clear buttons present in the window.
 - **`def insert():`** This function will insert the entry in the database by fetching the details entered by the user.
 - **`def delete():`** This function will require only the Gatepass Id to delete any entry from the database.
 - **`def Update():`** This function will update the Entry in the database of a given Gatepass Id.
 - **`def get().`** This function will require the only Gatepass Id and then after when get button is clicked all the relevant information present in the tuple of that Gatepass Id will be filled in all the fields.
 - **`def clear():`** This function will clear all the information entered in the textboxes.
 - **`def show():`** This function will display the tuples present in the `welcome_to_rgip` table in the small list box created in the window.
- **`def forget(self):`** Whenever the user clicks on forget password/username button in the login window a forget password window will be displayed, this window allows the user to enter its Username, Employee Id, and the new password. The window consists of a reset button and the working of this button is controlled by `forgot_function`.
- **`def forgot_function(self):`** This function will check whether the employee id entered by the user is present in the employee table or not if the employee id is present in the employee table then this

function allows the user to reset the password otherwise this function will display an error window.

Back End:

The python mysql connector is used to make a connection with the mysql database.

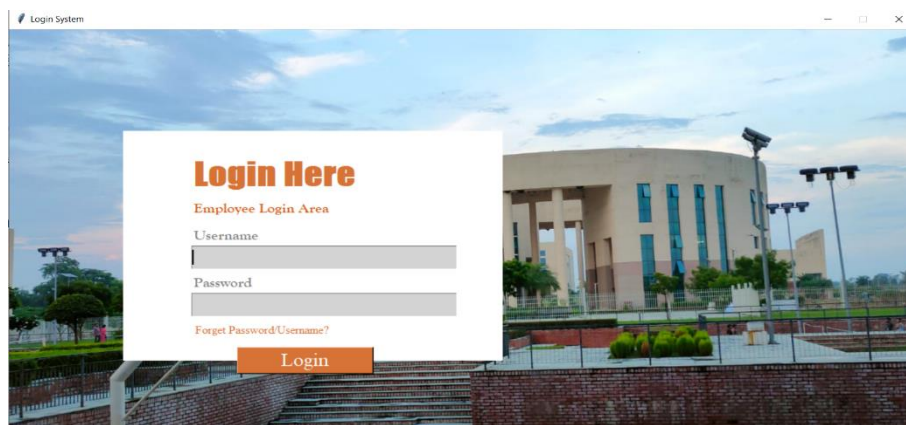
```
mydb=mysql.connect(  
    host="localhost",  
    user="root",  
    passwd="9457012141",  
    database="rgipt_entry"  
)
```

The variable mydb will now hold the connection with rgipt_entry database and whenever any query is to be executed following syntax can be used

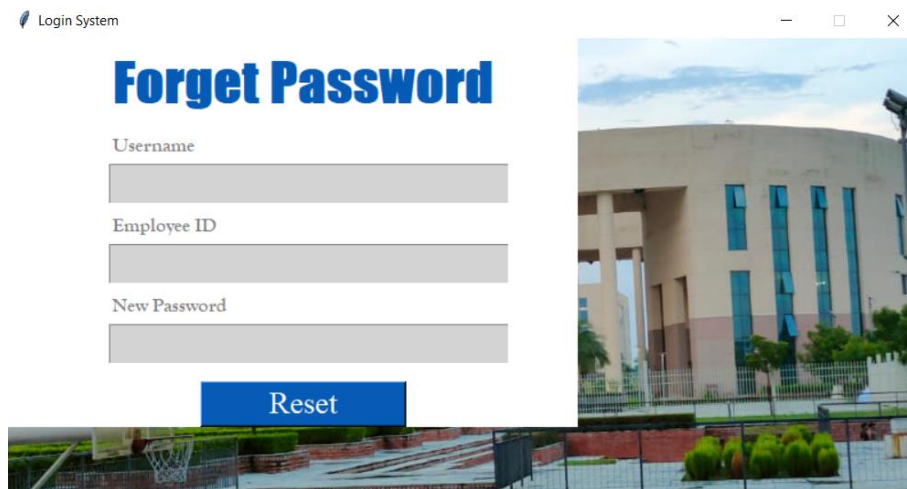
```
mycursor=mydb.cursor()  
mycursor.execute("create table welcome_to_rgipt(Gatepass_ID int primary  
key,Name varchar(45),Phone_Number varchar(15),Enter_or_Exit  
varchar(15),Time_of_Enter_or_Exit varchar(20),Date varchar(15))")
```

firstly mycursor variable is connected with the database and then the relevant query is executed. All the queries present in this project are executed using this syntax only.

Login Window:



Forget Password/Username? Window:



Login System

Forget Password

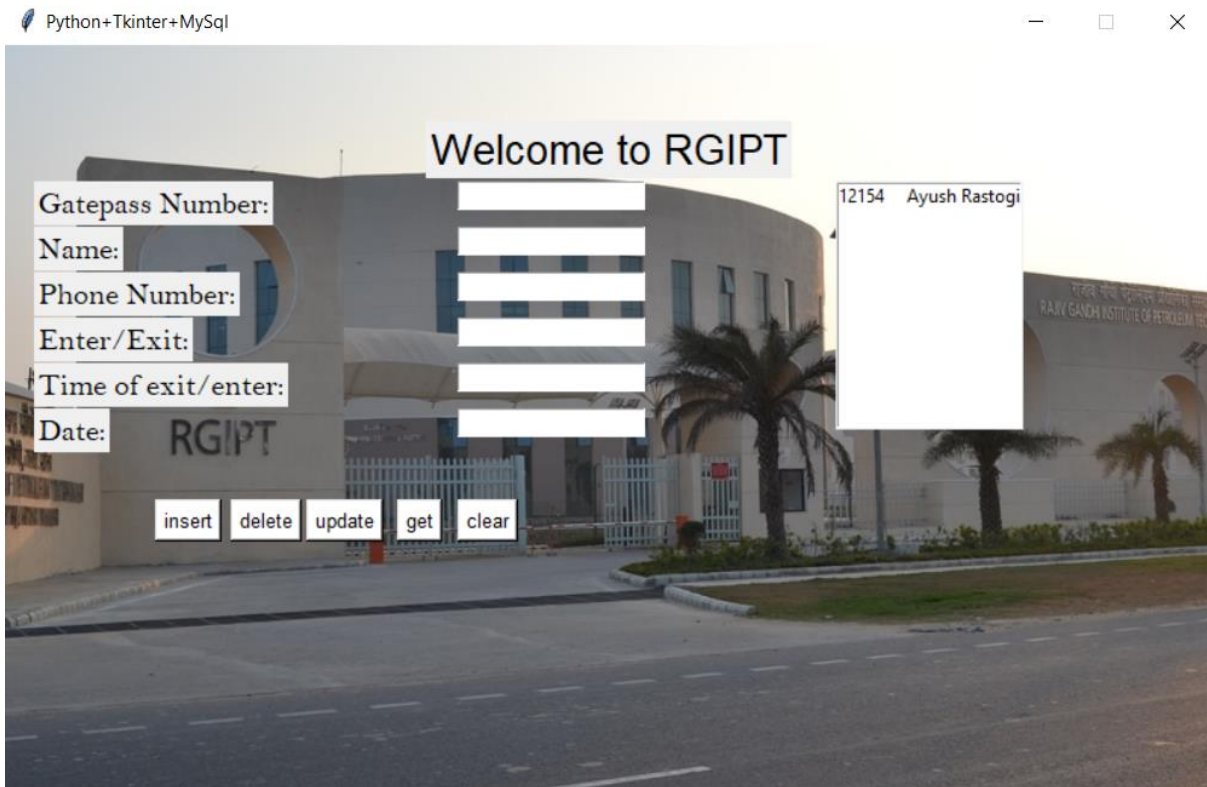
Username

Employee ID

New Password

Reset

Main entry window:



Python+Tkinter+MySQL

Welcome to RGIPT

Gatepass Number:

Name:

Phone Number:

Enter/Exit:

Time of exit/enter:

Date:

insert delete update get clear

12154 Ayush Rastogi