

Python Project Report

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# **APSTRACT**

* The project will calculate employees' salaries based on a fixed commission rate of 5% in the program. when you run the program, the first screen will ask you to enter the username and password to continue to the second screen, where it will ask you to brows the file storing employee information, including name, id, employee type (full-time, part-time), and hours worked, moving to another screen which it will display all the information along with the calculated salary. If an incorrect password is entered, the program will prompt for another attempt.

We made sure to use everything that is included in our course, such as GUI with tkinter, OOP as we defined a class called employee that stores the information of the employee as name, id employee type, hours, then we defined another function with a return value this function will calculate the salary based on the commission value, we used (try and except) as an exception handling , get() as a build in function ,Also we added loops and list

**The full code**

**import tkinter as tk**

**from tkinter import filedialog, messagebox**

**class Employee:**

**def \_\_init\_\_(self, emp\_id, name, emp\_type, hours ):**

**self.emp\_id = emp\_id**

**self.name = name**

**self.type = emp\_type**

**self.hours = hours**

**self.salary = self.calculate\_salary()**

**def calculate\_salary(self):**

**salary = 0**

**commission = 0.05**

**if self.type == 'full':**

**if self.hours > 208:**

**salary = self.hours \* 2.4**

**else:**

**salary\_full\_commission = self.hours \* 2.4 \* commission**

**salary = self.hours \* 2.4 + salary\_full\_commission**

**else:**

**if self.hours > 130:**

**salary = self.hours \* 1.8**

**else:**

**salary\_part\_commission = self.hours \* 1.8 \* commission**

**salary = self.hours \* 1.8 + salary\_part\_commission**

**return salary**

**def authenticate\_login():**

**entered\_username = username\_entry.get()**

**entered\_password = password\_entry.get()**

**file\_path = "credentials.txt"**

**with open(file\_path, 'r') as file:**

**username = file.readline().strip()**

**password = file.readline().strip()**

**if entered\_username == username and entered\_password == password:**

**login\_window.destroy()**

**open\_employee\_calculator()**

**else:**

**login\_window.withdraw()**

**error\_page()**

**def error\_page():**

**error\_window = tk.Toplevel()**

**error\_window.title("Error Page")**

**tk.Label(error\_window, text="Invalid credentials. Please try again.").pack(pady=10)**

**tk.Button(error\_window, text="OK", command=close\_error\_page).pack(pady=10)**

**def close\_error\_page():**

**login\_window.deiconify()**

**def browse\_file():**

**file\_path = filedialog.askopenfilename(filetypes=[("Text Files", "\*.txt")])**

**if file\_path:**

**read\_file\_content(file\_path)**

**def read\_file\_content(file\_path):**

**try:**

**with open(file\_path, 'r') as file:**

**content = file.readlines()**

**employees = []**

**for line in content:**

**data = line.strip().split(',')**

**emp\_id, name, \_, emp\_type, hours = data**

**hours = float(hours)**

**employee = Employee(emp\_id, name, emp\_type, hours)**

**employees.append(employee)**

**display\_employees(employees)**

**except Exception as e:**

**text.delete('1.0', tk.END)**

**text.insert(tk.END, f"Error reading file: {str(e)}")**

**def display\_employees(employees):**

**employees\_window = tk.Toplevel(root)**

**employees\_window.title("Employee Information")**

**employees\_text = tk.Text(employees\_window, wrap=tk.WORD, width=50, height=15)**

**employees\_text.pack(padx=10, pady=10)**

**employees\_text.insert(tk.END, "Employee Information:\n\n")**

**for employee in employees:**

**employees\_text.insert(tk.END, f"ID: {employee.emp\_id}\n")**

**employees\_text.insert(tk.END, f"Name: {employee.name}\n")**

**employees\_text.insert(tk.END, f"Salary: ${employee.salary:.2f}\n\n")**

**def open\_employee\_calculator():**

**global root**

**root = tk.Tk()**

**root.title("Employee Salary Calculator")**

**browse\_button = tk.Button(root, text="Browse", command=browse\_file)**

**browse\_button.pack(pady=10)**

**text = tk.Text(root, wrap=tk.WORD, width=50, height=15)**

**text.pack(padx=10, pady=10)**

**root.mainloop()**

**login\_window = tk.Tk()**

**login\_window.title("Login Page")**

**tk.Label(login\_window, text="Username:").pack(pady=10)**

**username\_entry = tk.Entry(login\_window)**

**username\_entry.pack(pady=10)**

**tk.Label(login\_window, text="Password:").pack(pady=10)**

**password\_entry = tk.Entry(login\_window, show="\*")**

**password\_entry.pack(pady=10)**

**login\_button = tk.Button(login\_window, text="Login", command=authenticate\_login)**

**login\_button.pack(pady=10)**

**login\_window.mainloop()**