

AUTOMATED DAILY SALARY CALCULATOR

As the name suggests, this project aims to efficiently calculate daily salaries for each employee based on their attendance record. This is relevant in today's world as it tackles the issue of maintaining employee attendance for the organization and calculate their daily salary instead of calculating it manually. The issue with manual calculation is that when there are salary policies such as certain conditions for addition and deduction to the salary, it can get really complicated especially when there are a lot of employees in the firm. We cannot perform calculations for each separately. Additionally, this project is not limited to workplace, if we remove the salary parameters it can be used for maintaining attendance for students in educational system and elsewhere.

I have certain employment policies which all employees must adhere to:

1. **Standardized work time:** 9:00am to 6:00pm (for all employees)
2. **Leave period:** Allowed
3. **Salary is paid:** On an hourly basis.

When these policies are violated, a certain percentage is either deducted or added to their salary. Now, let's look at the conditions which can lead to these:

1. **Late entry:** In case an employee enters the workplace later than 9:00am, 2% is deducted from their salary.
2. **Early exit:** In case an employee leaves the workplace earlier than 6:00pm, 2% is deducted from their salary.
3. **Leave period:** When an employee takes a leave period, they are not paid salary for the hours they are on leave. An additional 5% is deducted from their salary to discourage these habits.
4. **Overtime:** When an employee works later than 6:00pm, they are compensated for their additional hour. Additionally, they receive a 15% for their contribution.

Now let's dive into the functionality of my program. The program starts with reading the employee details which is stored in a text file of my system in format:

Employee ID: 1 Name: Sneha Agrawal Base Salary: 30

Employee ID: 2 Name: Rutvika Gupta Base Salary: 40

Once read, the program will prompt the user to insert their entry time, exit time, leave period if taken in a certain format. The program will keep asking for inserts if the format is wrong. Following this, the program will perform the calculation and provide user with the result which is daily salary for each individual present in the text file. When the program is done, it prompts the user that the calculated results (Employee attendance and their daily salary) are stored to a CSV file for future references. The details saved in a tabular form which columns Employee ID, Employee Name, Base Salary per hour, and Daily Salary. Another benefit for storing the result is a CSV file is that the employer can now just add daily salaries for each employee separately for a month to get their monthly salary. Thus, creating flexibility of results.