**Employee Attendance Management System**

This program will maintain employee attendance for a company or factory

Files:

The program will maintain these files:

Employees: This include employee\_id, name, phone, age

Attendance log: This include date, employee\_id, name

\*\*You can maintain more files if you need

Functionality:

Program has the following functionality:

Add employee manually - 1

1. The use can choose to add a new employee to the Employee file if all the data is supplied
2. Give an error message to the user if something is wrong

Add employees from file: - 2

1. The user can enter a file path which contains data of employees to add to the Employees file if all the data of all the employees is supplied
2. The file can be empty or contain one or more new employees
3. You can choose the structure of the file (bonus: read csv files and make it support tables made with Excel)
4. Give an error message to the user if something is wrong

Delete employee manually

1. The user can choose to delete an employee from the Employees file if all the data of all the employees is supplied (ID’s)
2. The file can be empty or contain one or more employees to delete
3. You can choose the structure of the file (Bonus: read csv files and make it support tables made with Excel)
4. Give an error message to the user if something is wrong

Mark Attendance: - 4

1. Employee enters his id, and the attendance is marked. The program gets date and time from computer clock (not from the user). Stores the attendance in the Attendance log file)
2. Give an error message to the use if the id is not in the Employees file

Generate attendance report of an employee -5

1. Attendance report for a given employee, given the employee ID, return all the entries of this attendance
2. Give an error message to the user if something is wrong

Print a report for current month for all employees - 6

1. Attendance report for all active employees in the last month
2. Give an error message to the user if something is wrong

Print an attendance report for all employees who were late (come after 9:30) - 7

1. Attendance report for all active employees who were late in the last month
2. Give an error message to the user if something is wrong

Instructions:

Make sure you write each functionality as a separate function

There should be one file with the main code, and at least one or more file for the functions, classes and utils you need

Main code file will show the navigation (the commands to the user) and will call functions from the other files

There should be proper checks for data validation

Use exception and catch them without letting the program fail

Extra Challenges:

1. Learn how to manipulate csv files and use them
2. Support different employees (managers, seniors, juniors etc) for example create report for all managers
3. Search if an employee exists in the system
4. Print report given a date range (for example all entries between 1-1-2016 to 29-1-2016)

Extra Hard – Involves learning new Technologies:

1. Develop a UI and build a GUI (Graphical user interface) for the system
2. Learn to code with a database and upgrade from working with files to working with a DB