

Problem Statement

Title: Employee Payroll System

Objective:

Develop an application to process and calculate employee payroll data by reading it from an input file and writing the results to an output file.

Problem Description:

The company needs an efficient solution for calculating and recording weekly payroll for employees based on their work hours and hourly wage. The system should be able to:

1. **Read Input Data:** Obtain employee information, including name, hours worked, and hourly wage, from a designated input file.
2. **Calculate Weekly Payroll:** Process the data to compute each employee's weekly payroll based on the number of hours worked and their hourly wage.
3. **Write Output Data:** Store the calculated payroll details in an output file, ensuring each employee's weekly earnings are correctly recorded.

Requirements:

- **Data Reading and Parsing:** Accurately read and parse data from the input file, verifying that it follows the expected format (e.g., name, hours worked, hourly wage).
- **Payroll Calculation:** Implement the logic to calculate weekly payroll for each employee.
- **Data Writing:** Write the processed payroll data to a new output file.
- **Exception Handling:** Handle any I/O errors such as:
 - File not found
 - Incorrect file permissions
 - Invalid data formats

Parameters:

1. **Input Parsing:** Ensure that the data read from the file is correctly parsed and validated before processing.
2. **Output File Creation:** Write the computed weekly payroll details to a separate file with clear and organized formatting.
3. **Error Handling:** Address potential issues like missing files, permission problems, or unexpected data formats with appropriate error messages and handling procedures.