Hacettepe University
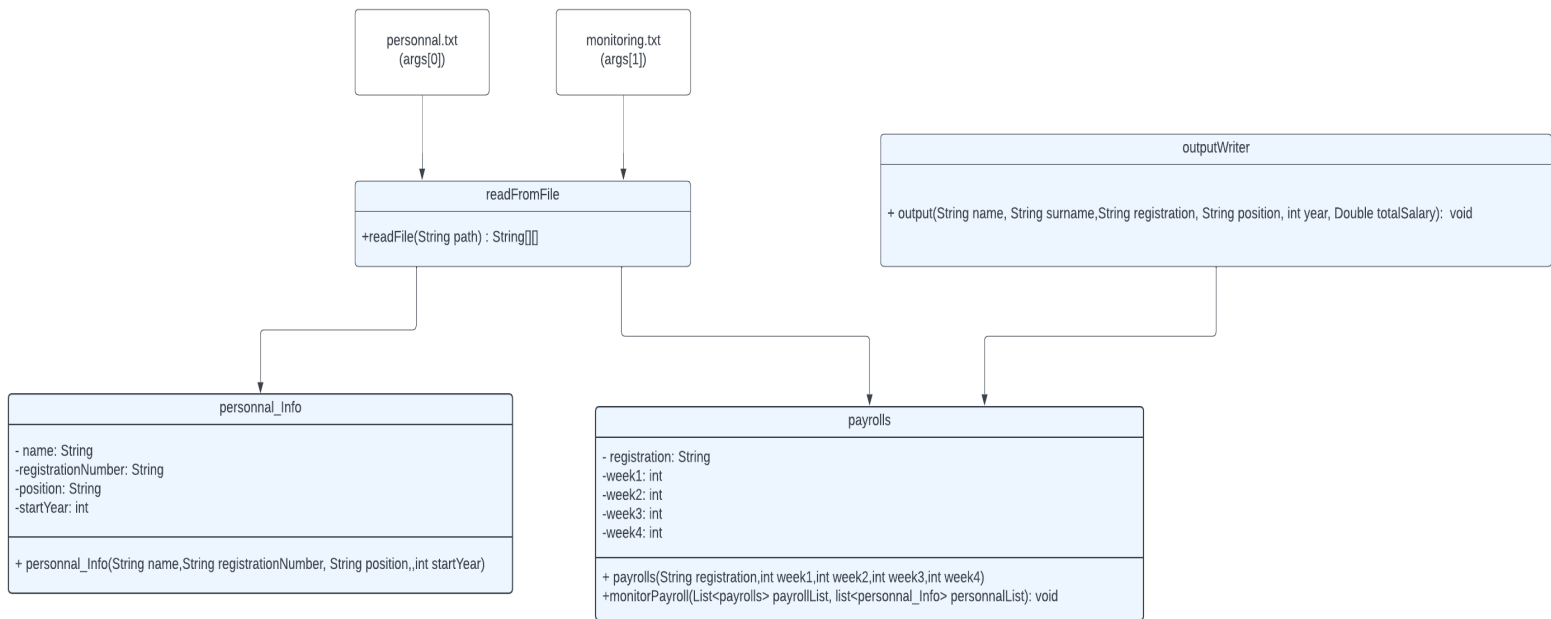
Department of Computer Engineering

BBM104 Introduction to Programming Laboratory II

Programming Assignment II Report

Subject : Inheritance

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Problem Definiton:

The process involves deriving salaries for university personnel by extracting pertinent data from the "monitoring.txt" and "personnel.txt" files. Various compensation structures, distinct to each personnel's role, work hours, and additional allowances (such as food and transportation), are considered in the salary calculation. Following this computation, output files are generated, housing individual information like names, registration numbers, and the corresponding computed salaries for record-keeping purposes.

Class diagram of system to monitor payrol of Personnel in a University.

Algorithm:

Initially, data extraction from "monitoring.txt" and "personnal.txt" is performed using the readFromFile() function, separating and organizing the data into 2D matrices based on tab-separated values. Within the main program, object instantiation via the personnal_Info constructor is established using the 2D array from personnal.txt, and a similar procedure is followed for the payrolls constructor with the 2D array from monitoring.txt. Subsequently, the monitorPayroll() method within the payrolls class facilitates the comparison between personnal_Info and payrolls objects, leading to comprehensive salary computations for university personnel. Following these calculations, output files are generated for each individual, containing details such as names, surnames, start years, positions, and total salaries, utilizing the outputWritter.output() method associated with the respective registration numbers.