CS F213 OBJECT ORIENTED PROGRAMMING

Topic – I/O Programming using Java

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General Instructions:

1. Read the question carefully.
2. Indent your code to make it readable and easier to debug

In this lab, you have to read the records of an input file, processes them according to the instructions and then answer some queries related to the information.

You will need to create 3 classes, Student, Batch and ParseRecords.

(Student and Batch classes are already given)

- The Student class contains information about the student like ID, name and semester wise GPA. It also contains functions to extract batch and branch from the ID number. It also contains two custom comparators to compare students by ID number and by CGPA.

- The Batch object contains an ArrayList of all the students in a batch.

- The ParseRecords class is from where you will need to implement I/O operations from files. It must have two HashMaps.

- It takes the records as input in the getRecords method.

- The queries on these records are then processed in the answerQueries method.

- Please carefully read the javadoc for the detailed explanation of each part of the question.

The Test Cases are as follows:

1. getRecords(): 2 Marks
2. answerQueries(): 8 Marks
   a. Query 1: 2 Mark
   b. Query 2: 2 Mark
   c. Query 3: 2 Mark
   d. Query 4: 1 Mark
   e. Query 5: 1 Mark