

CSE 204: Mid Exam, Spring 21

Sec B1

Hospital Ranking System

Create a **Hospital ranking system** where a user can rank a **Hospital** and view the rank of different hospitals. The system will have some functionality such as a user can **add** information of a hospital into the system, **rank** a hospital, **get** the rank of a hospital, and **find** the **list** of hospital **above** a specific rank. Each hospital is identified by its **name**, **specialty**, **address**, **rank (average)**, and **noOfUserRanked**. A hospital can be ranked between 0 and 10. When a user ranks (0 to 10) a hospital, the new average rank will be calculated (this will be similar to the CGPA calculation of Student).

Time: 20 min(Design) + 80 min(implementation)

As part of mid, you need to **Design (5 marks)** and **Develop (15 marks)** real life problem. Design has to be completed in group but implementation should be done individually.

Use the 3 layers design we did during our Lab class. For each problem, there will be 3 classes; 1) Base Class, 2) Class to handle the functionalities related to the list of the Base class and 3) Application class that will have the main method.

Design should include the summary of the first 2 classes above. For each class, create a 3x1 table as shown below. For 3rd row, only mention the header of the methods (no details are needed).

[Class Name]
[Attributes]
[Constructor and Methods]

Rubrics For the Exam

Category	Marks	Requirement
Design(CO3)	0-2	Design is incomplete with major issues.
	3-4	Design has minor issues.
	5	Design is complete and accurate.
Implementation (CO3+CO4)	0	Nothing was turned in.
	1-5	For programs that don't compile or run and have major problems and/or very little completion of program requirements. The score will be determined by how many problems there are.
	6	A good attempt has been made but program has several problems causing compile and/or run time errors.
	7	The program is correct but has a very small amount of easily fixed

		errors. (This is the highest you can get if your program will not compile.)
	8	The program compiles and runs but doesn't meet several requirements.
	9	The program compiles and runs but doesn't meet a very minor number of requirements.
	10	The program compiles and runs and meets all program requirements.
Viva	0-2	Can't explain the design and most of the codes and errors if there is any.
	3-4	Can Explain the design and most of the code but has minor difficulties.
	5	Fully explain the design and code.