



Faculty of Information Technology

Department [ALL]

FINAL EXAM Project Instructions: APRIL 2022-2023 (2)

[JAVA PROGRAMMING]

You are required to Develop any real-world problem-solving strategy that should take into account an issue already present by implementing a ***Distributed Java Application using RMI(Remote Method Invocation) , Swing GUI and Hibernate Framework.***

1. Create a new database using any DBMS (Database Management System) such as mysql, postgresql, oracle, etc. **Note:** *If the Student Management System is the main objective of your project, the database name should be "Student_managment_system_db"*
2. Using NetBeans IDE create a client application named `StudentMgtSystemClient{studentId}`, for instance ***StudentMgtSystemClient00001. [1pts]***
3. Using NetBeans IDE create a back-end Server application named `StudentMgtSystemServer{studentId}` , for instance ***StudentMgtSystemServer00001. [1pts]***
4. In the server application, create a Java class that implements a server application that accepts incoming request from clients on port 81, 6000 or 5000 **[2pts]**
5. By Using Hibernate Framework In Server Application implements CRUD operation and provide interface to communicate with client **[10pts]**
6. In the client application, create a JFrame Forms that implements all functionality of system and connects to the server on port either 81, 6000 or 5000. to persit or retrieve data from database hosted on server side. **[10pts]**
7. Under client Application you're requested to perform 5 minimum validation rules **[5pts]**
8. Under Client Application you should implement search functionality and also any data retrieved or by reading data from database should be displayed in JTables **[5pts]**
9. Use JOptionPane to generate appropriate messages to the end-user; the system should generate an information message if data is inserted successfully and generate an error message otherwise and also any Validation Messages. **[1pts]**
10. VIVA **[5pts]**

END