

B.Eng (L8) in Software and Electronic Engineering.

Practical Exam : NPwJ 20201

6th December 2021 9:00 – 12:00

0) 3 tier system

1) You can create 1 projects (EXAM2020) with two modules. One for the App and the other for the Web Server OR you can create 2 separate projects, one for the App and the other for the Web Server.

2) You cannot use existing projects.

3) The exam is open book which means you are only allowed to use Moodle, Example Code Assignment Code and Java Doc/Diagrams.

Please read that attached doc or click the link [Student Guide to Academic Integrity](#)

4) NO two people write the same Code.

5) ZIP your project using “File/Export/Project to Zip File” and upload before 12.

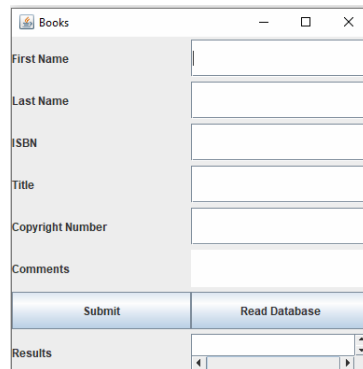
>>>> Don't forget to hit the submit button <<<<

The zipped file must consist of your project file(s), the SQL script file that you used to create the Database and a reame.txt. The readme file should state how much of the exam you completed and outline any issues you had. (2 or 3 lines should be enough)

6) DO NOT EMAIL YOUR CODE

Question 1. (100%)

The Java code supplied provides a front end for a books database application.



1. Create a SQL script file that will create a MySQL database that will contain the parameters display in the above Application GUI.

You must include this script file with project upload. (10%)

2. Create a Web Application that contains a servlet that is activated by the Application when the 'Submit Button' is pressed. The application passes a POJO object to the servlet that contains the data inputted by the user.

Add code to the Application to check if parameters are missing before sending the object to the servlet. Inform the user if the data is missing. (30%)

3. The servlet should save the data that it receives in the MySQL database and indicate back to the user whether the operation was a success or failure. (30%)

4. Create another Servlet that will return all the entries in the database as POJO's to the user when the 'Read Database' button is pressed.

Display the returned data in the provided TextArea in the Application. (30%)