Computer Science 1st. Semester

Final Project / Oral Presentation

Final Project

In this project, you need to use all the skills you have acquired throughout the first semester and demonstrate that you are able to work with all the different areas you have been introduced to.

You need to work in a group of ideally 4 group members and thereby demonstrate that you are able to cooperate with other programmers and code a larger computer system, consisting of both a frontend and a backend.

The two main goals of the project involve showing you are capable of setting up a web application and using a database.

What the web application and the database do exactly is up to you to decide. As an example, it could be that you either create a social media message board wall, where users can communicate with each other or perhaps create a computer game that uses a database and then put it up on a web site for people to download. The possibilities are numerous with regards to your project idea, as long as you meet a few simple requirements.

Requirements

The requirements are split into 3 groups green, yellow and red, where your level of coding skills determines how many of the requirements you should strive towards completing by the end of the project.

Green

- A MYSQL database must be set up and used, containing all the information you need, to implement your idea.
- SQL has to be done via a JDBC connection, creating and selecting information in the database based on different search criteria and sorted in different orders.
- The front end should be constructed with HTML/CSS and servlets have to be involved in getting and posting some data.

Yellow

- Arrays/Arraylists have to be utilized in the handling of the information, when creating and selecting information in the database.
- The Comparable/Comparator interface is mandatory to implement somewhere and used when sorting some objects.
- A couple of tests have to be set up with Junit to validate that key functionality is working as intended.

Red

- Polymorphism through either inheritance or interfaces must be a part of the solution somewhere, where it makes sense to do so.
- Error and exception handling ought to be done generally and a custom exception thrown specifically when information is not found.
- There needs to be a special focus on code quality and software patterns when programming the objects, methods and logic.

Help

During the project days 11/1/2017 – 20/1/2017 there will be help available from 8 – 16 each day except 18/1/2017.
12/1/2017, it will furthermore be possible to book 30 minutes more focused project help sessions, in addition to the standard help available.

Meetings can be booked at the following link...
https://docs.google.com/spreadsheets/d/1IIsyy-RAk4fd8iDLFWU3J7Lrv8zCAZsridxQuVCV6t4/edit?usp=sharing

Hand-in

Hand-in needs to happen before 20/1/2017 17:00 at fronter in the "14 Final Project" folder, in the form of a zip file, containing the completed final project.

Hand-in of the final project will result in 8 study points.

Oral presentation

Oral presentations will be held 23/1/2017, where you as a group present the result of your work and how you have met the set requirements.
You have 5 minutes per group member to present what you have accomplished.

Oral presentations are then followed by a questions and discussion session, where the details of your project work will be discussed with focus will be on the main topics that you have studied throughout the first semester.
The questions and discussion session will last 15 minutes per group member and afterwards you will be graded according to the 7-point grading scale, to give you an indication of your level after finishing the first semester.

Oral presentation will furthermore result in 2 study points.

Information about group times and room number can be found in the "Module 6" folder in the DATSTUD room at fronter.

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