

Project Information

Submission Deadline: 05 May 2025 23:59

This project is a group effort.

Part I (32 pt.)

Implementation of a Renewable Energy Plant System based on the provided requirements.

1. A code base on GitHub. (20 pt.)
2. Demonstration video of REPS - maximum 5 mins (5 pt.)
3. A report (**part A**) (5 + 2 pt.)
 - a. Sequence flow diagrams of the implemented use cases, i.e., one sequence diagram for every use case. (5 pt.)
 - b. Class diagram (2 pt.)
 - i. It must represent the right connections among entities (classes, objects, traits) to explain how they are linked.
 - ii. The objective is to have an overall clear picture of the REPS implementation.
 - iii. You must take care of the first two points. Otherwise, it doesn't have to be a strict class diagram because it is not an Object-Oriented Programming project.

Part II (8 pt.)

Explore one topic from the following and implement it.

1. Strictness and Laziness
 - a. It has multiple concepts related to it; choose one.
2. Functor

In the report (**part B**):

- a. Theoretical explanation of the concept. (3.5 pt.)
- b. Reference(s) that you have used to learn the concept. (1 pt.)

Implementation:

- a. A code base with a minimalistic but meaningful implementation of the concept. (3.5 pt.)

The Report (part A + part B: two sections)

- Please, use proper tools for drawing – no paper-and-pen drawings.
- The report must be properly formatted, have a logical flow, and uses clear and correct language.
- The maximum length for part B in the report is 1 page.

Deliverable

Deliverables: Write your Names in the code as a comment. The whole code must be well commented on and supported with descriptions where required.

Submission: Return boxes on Moodle and GitHub.

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Deliverables for Project:

1. The project report (PDF) with parts A and B.
 - a. It must have a title page that mentions the names of the team members and your group number.
2. A .txt file with a link to the Demonstration video for only REPS (on OneDrive)
3. Compress the above two files into a single folder.

The compressed folder must be named like this:

"YourName_GroupNumber_project"

For example: "IflaahSalman_XXX_project"

Only one member of the project group will submit the compressed folder.

4. Your **own** Peer Evaluation form
Naming: *YourName_GroupNumber_peerEvaluation*
Example: "IflaahSalman_XXX_peerEvaluation"

Everyone submits the peer evaluation form.

5. REPS Code implementation uploading on GitHub as demonstrated during an exercise session.
6. Self-learned topic code implementation as a separate ".scala" file on the return box on Moodle.