Peer Review in Software

32G (July) SW Training – Practice

1. Description

A teacher (our customer) wants to have a program which can help him create, record, change, and analyze… the scores of students. The program, written in Java, will work in console mode. It supports the following features:

Creating a new file

1. Create a new text file with a predefined format to contain:
    a. Student ID number (e.g., 1, 2, 3…)
    b. Score of Math, Physics and English

Manipulating data

1. Add a new student with scores
2. Delete an existing student

Calculating statistical results

1. Total number of students
2. Student who has the highest average score
3. Student who has the lowest average score

The program will provide the following 06 commands:

1/ program -create filename

- Create a new text file with a predefined format. Example:
    - program -create scores.txt

2/ program -add filename x y z

- Add a new student with the scores respectively x, y, z into the *filename* file. Example:
    - program –add scores.txt 10 9 8
    - program –add scores.txt 8 7 6

3/ program -remove filename N

- Remove the student with ID "N" from the *filename* file. Example:
    - program -remove scores.txt 10

4/ program –max filename

- Get the ID of the student who has the highest average score and also display that score.

5/ program –min filename

- Get the ID of the student who has the lowest average score and also display that score.

6/ program –total filename

- Display the total number of students existing in the database file

Errors will be displayed if the syntax keyed in by the user is not correct as expectation.

2. Your activity

A team has 4-5 members:

- 1 leader, who will organize the Peer Review meeting and approve the meeting minutes.
- 2-3 members, who will write a design document and create a traceability matrix (requirement vs. design)
- 2-3 members, who will write source code and continue creating the traceability matrix above (design vs. source code)

2.1. Meeting #1

All team members will discuss a design strategy (no need a meeting minutes).

After that, 02 members of the Design team will design the software.

The design document must be comprehensible so that coders can write source code based on it.

2.2. Meeting #2

The design document will be sent to coders for peer-review (need 1 meeting minutes).

If there are findings, the authors of the work products have to fix the findings, then update the work products.

After the design document is finalized, the members of Coding team will:

- write source codes.

2.3. Meeting #3

The source codes will be sent to designers for peer-review (need 1 meeting minutes).

If there are findings, the authors of the work products have to fix the findings, then update the work products.

After the source code is finalized, it is ready to submit your outputs to trainer.

3. Outputs

3.1. Outputs

1. 01 design document (.docx format)
2. 01 traceability matrix (.xslx format, using a template of the JB5001 standard)
3. Source codes (written in Java)
4. At least 01 peer review minutes for design document (following the peer review minutes template provided in this training course)
5. At least 01 peer review minutes for source codes (following the peer review minutes template provided in this training course)

3.2. Requirements for outputs

- No typo/spelling mistake in design document
  - 03 points deducted
- No mistake in general information of the peer review minutes
  - 01 point deducted for 01 mistake
- No wrong judgement for defect
  - 01 point deducted for 01 mistake
- No wrong traceability information
  - 01 point deducted for 01 mistake
- Source code cannot run as designed
  - 05 points deducted

3.3. Submission

- The leader will email to quynh.tran.jy@renesas.com
- All members of the team are added in CC field
- Email subject: [RVC Training] Peer Review in SW – Group X
- Attached file: All the outputs in 3.1 are compressed in a .zip file named GroupX.zip

4. Scoring

Pass score: (>=) 65

Output	Max point	Min point
Design document	20	0
Source codes	20	0
Traceability matrix	10	0
Peer review minutes for design document	25	0
Peer review minutes for source codes	25	0

The score will be deducted due to mistakes as explained in 3.2.