COURSE: SOFTWARE MAINTENANCE AND EVOLUTION
COURSE CODE: WIF3005
SESSION:2020/2021 - SEM I

Group Project (50%)

Start Date: 23 November 2020 (Week 6)

Submission of Group Project Report and Video Presentation:
25 January 2021 (Week 15)

Form a group of seven (6-7) members. Elect a leader for your group to coordinate the teamwork.

Objective:

"To maintain, evolve, collaborate, test build, and deploy your selected code", utilizing any tolls such (Gitlab, Github or Bitbucket) or any other tool you choose to achieve the project objective.

Project's Tasks:

a) Create new project with repository. Could be cloned from existing project or students could develop new one.
b) Working as a team with different roles.
c) Analysis your selected code.
d) Identify the components that required maintenance and evaluation (wherever its applicable).
e) Carry on impact analysis before any changes.
f) Team leader assign tasks and responsibilities.
g) Team leader review code changes and approved it.
h) Continuously build and test code on preferred branch.
i) Continuously deploy application to preferred environment.
j) Rollback to preferred version if system experience any failure.
k) Baseline and dashboard are essential for any code changes.

(25 marks)

Group Report:

a) Content:
    i. Cover page with details of all group members
    ii. Table of contents
    iii. Checklist (refer to Appendix A)
    iv. Project's tasks
    v. Screen captures of the tool set-up and source code modification.
    vi. Reference list
    vii. Appendix containing complete source code of the system
b) Marks will be deducted if citations and/or references are not properly done.
c) Format: line spacing 1.5, font size 12. Illegible text and diagrams will be given zero mark.
d) Page limit: 80 pages (excluding appendix that contains the source code). Exceeded pages will not be marked.

Group Video Presentation:

a) Duration: 30 minutes per group
b) Coverage: verbal explanation of project's tasks, demonstration of improved system and source code.
c) Each member's presentation will be evaluated in terms of quality of slides, clarity and confidence, complexity of materials presented.
d) A member who does not do presentation in the video presentation will be given zero mark for this project.

(25 marks)

Project submission:

The group leader has to upload the following items to Spectrum before the deadline:

a) A .zip file containing the group report and a project folder comprising all the source code.
b) Video presentation file or link.

Important note:

Failure to submit any of the required items (report**,** source code, video) before the deadline, not presenting in the video presentation, or any form of copying/plagiarism will be given zero mark for this project. For copying/plagiarism case, all parties involved will be given zero mark without any further investigation.

END

Appendix A

Checklist Sample (Chapter 2 Taxonomy: Classification Software Maintenance)

Intention-Based Classification Software Maintenance		**Implementation Status**	**Person in Charge**	**Justification**
Corrective Maintenance		√ or ×		Why ??
Adaptive Maintenance				
Perfective Maintenance				
Preventive Maintenance				
Activity-Based Classification Software Maintenance		**Implementation Status**	**Person in Charge**	**Justification**
Corrective Maintenance				
Enhancive Maintenance				
Evidence-Based Classification Software Maintenance		**Implementation Status**	**Person in Charge**	**Justification**
Business Rules	Enhancive Maintenance			
	Corrective Maintenance			
	Reductive Maintenance			
	Preventive Maintenance			
Software Properties	Adaptive Maintenance			
	Performance Maintenance			
	Preventive Maintenance			
	Groomative Maintenance			
Documentation	Adaptive Maintenance			
	Reformative Maintenance			
Support Interface	Evaluative Maintenance			
	Consultive Maintenance			
	Training Maintenance			

Checklist Sample (Github Operation)

Task	Implementation Status	Person in Charge	Justification
Create repository			
Add collaborator (team member)			
Delegate function accordingly			
Create branch			
Make changes to code			
Proposed change request			
Review change and approve/reject change			
Create Workflow (CI file)			
Merge file			
Baseline (code, branch, etc)			
Update dashboard			