UECS2363 SOFTWARE CONSTRUCTION AND CONFIGURATION
Assignment 3 : Group Presentation and Report

The Course Objective (CO) assessed in this assignment are:

Part 1	CO2: Develop scripts that automated the software construction and configuration processes (C6).
Part 2	CO4: Construct a continuous integration project as a team (A3).

In this project, you are required to **fork** then **clone** an open source project, then **setup**, **configure** and **demonstrate** a software development environment that **applies** the practice of **continuous integration** and **deployment**.

Register your project title in "Assignment 3" spreadsheet in this Google Sheet. Make sure that NO OTHER groups have registered the same project before your team. You are allowed to change the project as long as no other group has registered it.

Software/Application Development Environment.
Group assignment's software/application development environment should have the following:
1) A central repository of the code/files in GitHub.
2) A Continuous Integration (CI) server (Jenkins, TeamCity, CruiseControl, Gitlab CI etc.) installed at a computer, or via a Continuous Integration service.
3) The source-base must be cloned from an active open source project with automated test codes (unit tests, component tests, UI tests, etc.)
4) The source-base must have at least TWO branches.

Presentation and Report.
In your report and presentation (15 minutes), you are required to show at least the following:
1) The overview of the software/application development project that you build
2) The overall configurations of your setup, e.g. development OS, tools, build scripts, VM, docker, etc, if any.
3) Demonstrate the process of CI.
4) Demonstrate the actions of CI server when a build is successful or otherwise.
5) Demonstrate how new branches (bug fix, new features) were handled.
6) Demonstrate the process of how multiple developers were working on the same project at the same time (proper usage of VCS).
7) The CI server should be able to retrieve the report on:
   a) History of the build
   b) Code quality (static code analysis)
   c) Quality of the test code (code coverage)
   d) Any others you would like to add on
8) The roles of each team member in this project.
9) Any other matters or highlights that you think fit.
10) Create a report of not more than 15 pages, describing the above-mentioned points. Highlight also points that you think your team has done well or uniquely.

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Submission Procedure:

1) Name your report as the following:
   UECS2363A3_GROUP<GROUPNUMBER>.pdf, where   <GROUPNUMBER> denote
   your group number registered in the Google Sheet. e.g. **UECS2363A3_GROUP1.pdf**
2) Submit the softcopy of the report via WBLE (https://ewble-sl.utar.edu.my/) before **6.00pm**,
   4 September 2020 (Friday).
3) Report content formatting:
   i.   Font-type: **Times New Roman**
   ii. Font-size: **12pt**
   iii. Paragraph: **Single spacing**
   iv. Alignment: **Justified**

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UECS2363 Assignment 3 Marking Rubrics

Criteria	Lowest			Highest		Total
	1	2	3	4	5	45%
Create overall project setup configuration.	Not able to setup/ demonstrate a working setup configuration	Poorly setup and almost 70% of project buildup in "prototype" mode / not working.	Almost 50% of the project buildup are erronoeus with appropriate explanations: e.g. open-source deprecation	Almost 20% of the project buildup are erronoeus with appropriate explanations: e.g. open-source deprecation	Project evironment is working without any error.	
Create continuous integration server for software project	Poor setup/ demonstration of appropriate CI process for project development	Poorly setup or demonstrated and almost 70% of CI process is erroneous.	Almost 50% of CI process is erroneous with appropriate explanations and proposed solutions	Almost 20% of CI process erronoeus with appropriate explanations and proposed solutions.	CI process is made fit for the software/ application development.	
Create automation for project's continuous integration	Poor setup/ demonstration of actions of CI server; almost 90% are erroneous.	Poorly setup or demonstrated and almost 70% of actions / reports retrieved by CI server are erroneous.	Almost 50% of CI actions / reports retrieved are erronoeus with appropriate explanations and proposed solutions: e.g. balance frequency of running continuous integration jobs and resource utilization	Almost 20% of CI actions / reports retrieved are erronoeus with appropriate explanations and proposed solutions	CI process and actions / report retrieved is error-free.	
Total for Part 1: Develop scripts that automated the software construction and configuration processes (C6).						
Overall presentation / demonstration of group assignment.	Poorly articulated ideas in own words / not reflecting the report made.	Large improvement for ideas articulated through presentation.	Acceptable articulation of ideas with presentation.	Good explanation of ideas which lead audience to understand and able to answer questions appropriately.	Great explanation and high confident throughout presentation which convince the audience about CI.	
Overall language clarity and formatting of report.	Poorly articulated ideas in own words / similar with other sources and messed up formatting.	Large improvement for ideas articulated with own words and formatting.	Acceptable articulation of ideas in own words and followed pre-defined formatting.	Good explanation of ideas which lead readers to understand quickly and well-arranged report.	Original, great explanation and well-arranged report.	
Evaluate forked and cloned software/application development project: overview.	Not articulated with own words / similar with other sources.	Evaluation of the project is poorly articulated with own words.	Acceptable evaluation of the project in own words.	Good explanation accompanied with own ideas in evaluating the project.	Great explanation accompanied with own proposed solutions.	
Demonstrate handling of collaboration (CD) through appropriate usage of VCS	Poorly explained usage of VCS / not understood correctly / similar with other sources.	Large improvement in explaining handling of CD through VCS.	Handling of CD through VCS explained briefly.	Good explanation of handling of CD through VCS which portray good understandings.	Great explanation which portrayed ability to propose CD handling from great understandings.	
Demonstrate collaboration between members through highlight of	Only 1 member contributing to almost 60% - 80% of the project, there are obvious	Large improvement on members' collaboration and contain at least obviously 1	Some members collaborated on project while half of the team contributed only on paperwork.	All have a fair share of collaboration, but 1 contributed on paperwork.	All have a fair share of collaboration and contribution to the proposed solutions of this project.	

roles	evidence of >1 "sleeping" members.	sleeping member.				
Demonstrate unique / highlight of the project through collaboration	Poorly articulated highlights in own words / similar with other sources.	Large improvement / low significance on highlighted ideas / proposals.	Acceptable significance of ideas highlighted.	Good explanation of highlighted ideas, imply understanding of CD and CI concept through teamwork.	Great explanation which portrayed ability to propose and practice best practices for CD and CI in teams.	
Total for Part 2: Construct a continuous integration project as a team (A3).						