CTU training solutions
CAREER SUCCESS STARTS AT CTU

CTU training solutions

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I declare that I am familiar with, and will abide to the Examination rules of CTU	**SUBJECT NAME: ADVANCED PROGRAMMING** **SUBJECT CODE: PRG522**

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Summative Assessment

Duration:

Date: -

Total Marks: 100

Total pages: 5

Examiner: Mr. Isaac L

Moderator: Mr. Alfred

_____

Signature

Student number

Surname:	**Initials**:		
		/	%

Instructions:

- Recall to keep a copy of all submitted assignments.
- All work must be typed using Microsoft Word and convert the word document to PDF before uploading to COLCampus.
- Kindly note that you will be evaluated on your writing skills in all your assignments.
- Negative marking will be applied if you are found guilty of plagiarism, poor writing skills or if you have applied incorrect or insufficient referencing.
- Each assignment must include a cover page, table of contents and full bibliography, based on Harvard referencing style.
- Students are not allowed to offer their work for sale or to purchase the work of other students. This includes the use of professional assignment writers. If this should happen, CTU training Solutions reserves the right not to accept future submissions from a student.
- Spelling, style, fonts, font size, line spacing

  - Please copy the questions onto your answer sheet (single space the questions), and make sure to use numbers to indicate the answers to each question.
  - Always use a spell checker before you submit assignments! We reserve the right to deduct point for each obvious misspelling.
  - Always double-space your answers.
  - Please use Arial (or Calibri (Body)), 12 point as the font for your assignments. Certain fonts have been known not to come across in the PDF files.
  - Use only black or blue font face colors. Do not use red!

Question 1   50 MARKS

You must take visible screenshots of each activity completed. There is a Table of contents at the end of this assignment which all students should follow and include in the final submission. **Using your credentials, to login to dev.azure.com**

1.1 Describe the following terms as they are used in DevOps.

a. Technical debt and its sources   (5 marks)

b. Maven packages   (5 marks)

1.2 Describe source control and its benefits   (10 marks)

1.3 Distinguish between Git and Team Foundation Version Control   (10 marks)

1.4 What is a pull request? Discuss.   (5 marks)

1.5 Describe a pipeline is Azure DevOps. (5 marks)

1.6 Describe the benefits of continuous integration in DevOps.   (10 marks**)**

Question 2   50 MARKS

2.1   (10 marks)

Create a **C#** project in Visual Studio 2019 which performs some basic functionality. Create a repository in Git Hub and push your source code to Azure Repos or Git Hub. Capture a screenshot of your code in Azure Repos or GitHub.

2.2   (10 marks)

Create a pull request and capture a screenshot of your request in Git Hub. Capture a screenshot showing the tracked changes in your Git Hub

2.3   (10 marks)

Create a Project Wiki Page in Azure DevOps to allow collaboration with all the team members in the project. The title page of your Wiki should be **"Project updates".** Allow three (3) project members to contribute to your Wiki page. A screenshot of the member contributions should be pasted at the appropriate place.

2.4   (10 marks)

Under Azure Boards, create a new delivery plan for the development team and name it "Test Plan". Add the field criteria as follows:

Field	Operator	Value
Automation status	Contains	Planned

Capture a screenshot of your Test Plan

2.5 (10 marks)

Create a basic build pipeline from a template of your choice and capture at most 4 steps of the build process. (Connect, Select, Configure, Review)

Your report should include a dynamic table of contents as shown on the next page:

Table of contents

Completed Declaration of Authenticity

I _____ hereby

(FULL NAME)

declare that the contents of this assignment _____ is entirely my own work except for the following documents: (List the documents and page numbers of work in this portfolio that were generated in a group)

Activity	Date

Signature: _____ Date: _____