



CANTERBURY

TECHNICAL INSTITUTE

ASSESSMENT

ICT50715

Diploma of Software Development

Testing and Validation

Assessment Code:

DITS-PRG520-1

ICTPRG520 –

Validate an application design against specifications

Assessment Overview

This assessment deals with the skills and knowledge required to check a software application design against the specifications, and to apply validation techniques across the system's life cycle.

Information for Candidate:

- All work is to be entirely of the candidate.

General Information for this assessment:

- Read the instructions for each question very carefully.
- Be sure to PRINT your FULL name & LAST name in every place that is provided.
- Short questions must be answered in the spaces provided.
- For those activities requesting extra evidence such as: research reports, ESSAY reports, etc. The student must attach its own work formatted in double space, Arial 12 pts.
- All activities must be addressed correctly in order to obtain a competence for the unit of competency.
- If the candidate doesn't understand the assessment, they can request help from the assessor to interpret the assessment.

Re-assessment of Result & Academic Appeal procedures:

If a student at CTI is not happy with his/ her results, that student may appeal against their grade via a written letter, clearly stating the grounds of appeal to the Deputy Principal. This should be submitted after completion of the subject and within fourteen days of commencement of the new term.

Re-assessment Process:

- An appeal in writing is made to the Deputy Principal providing reasons for re-assessment /appeal.
- Deputy Principal will delegate another faculty member of CTI to review the assessment.
- The student will be advised of the review result done by another assessor.
- If the student is still not satisfied and further challenges the decision, then a review panel is formed comprising the lecturer/trainer in charge, the Deputy Principal and the Director of Student Services OR if need be an external assessor.
- The Institute will advise the student within 14 days from the submission date of the appeal. The decision of the panel will be deemed to be final.
- If the student is still not satisfied with the result, the he / she has the right to seek independent advice or follow external mediation option with CTI's nominated mediation agency.
- Any student who fails a compulsory subject or appeals unsuccessfully will be required to re-enrol in that subject.

The cost of reassessment will be borne by the Institute. The external assessor will base his/her judgement based on principles of assessment. These principles require assessment to be reliable, fair, practical and valid.

Academic Appeals

- If you are dissatisfied with the outcome of the re-evaluation process, you have a right to appeal through CTI's complaint / grievance protocol.
- The notice of appeal should be in writing addressed to the Deputy Principal and submitted within seven days of notification of the outcome of the re-evaluation process.
- If the appeal is not lodged in the specified time, the result will stand and you must re-enrol in the unit.
- In emergency circumstances, such as in cases of serious illness or injury, you must forward a medical certificate in support of a deferred appeal. The notice of appeal must be made within three working days of the concluding date shown on the medical certificate.
- The decision of Deputy Principal will be discussed with the PEO and will be final.
- Student would then have the right to pursue the claim through an independent external body as detailed in the students' complaint / grievance policy.

Submission Details:

The assessment task is due on trainer provided date. Any variations to this arrangement must be approved in writing by your assessor. Submit this document with any required evidence attached. See specifications below for details

Performance objective

The candidate must demonstrate skills, knowledge and understanding and promote the use and implementation of innovative work practices to effect change, as states the unit of competency **ICTPRG520**. Throughout this program, you are to demonstrate foundation skills in:

- Write and edit computer code, and technical data, ensuring the correct syntax and accuracy.
- Systematically gather and analyse all relevant information and evaluate options, to make decisions about APIs.
- Identify technical or conceptual issues, and apply analytical processes, to resolve issues.
- Use a range of digital tools and sophisticated techniques, to meet the desired outcomes.

Assessment description:

You will undertake **computer based test** based on class lectures and activities in this Practical Activity.

Procedure:

- 1 You will need to follow instructions below and address all activities required.
- 2 This is an individual activity where each candidate will be assessed individually;
- 3 Complete all activities and submit assessment evidence (including these papers) to your assessor the date specified above (see submission details).

Specifications/Conditions:

Your assessor will be looking for evidence of:

- Analyse legislation and standards relating to professional conduct and privacy in the IT industry
- Contribute to the development of a code of ethics and monitor the workplace to ensure code of ethics is being applied and is appropriate
- Contribute to the development of a privacy policy and monitor the workplace to ensure the policy is being applied and is appropriate.
- Relevant organisational policies, legislation and standards documentation.
- Industry codes of practice.

Assessment Details

SPECIFICATION and TASK

Problem Scenario

Logical Peripherals Australia have recently update their stock control system, LPA would like to implement an eCommerce solution for customers to purchase products directly from the web-site 24/7. LPA require this extension to their web-site within two weeks.

Tasks

You have been given the task of developing a purchasing module using rapid application development to deliver maximum benefit for time, cost and quality along with specifications given below, using PHP Server-Side Scripting language, HTML, JavaScript, MySQL database and CASE tools to build the module.

Below are the requirements that you need to fulfill:

Functional requirements:

- ✓ Secure registration for new customer
- ✓ Login for purchase
- ✓ When placing the new item for purchase, display the price and ask for confirmation.
- ✓ Sort the items for sell by price.
- ✓ Create a shopping cart so customer can shop number of items and finally check out. Cart should display all added products along with price and quantity.
- ✓ Payment option.

Non Functional requirements:

- ✓ 24 X 7 availability.
- ✓ Professional look and design.
- ✓ Better component design to get better performance.
- ✓ Design application with focus on modularity for future easier extension.

While building an application, track implemented modules iteratively, compare specifications and implementation schedules for each prototype & incorporate feedback in next prototype, and confirm requirements as per specifications.

MySQL Workbench provides DBAs and developers an integrated tools environment for:

- Database Design & Modelling
- SQL Development
- Database Administration
- Database Migration



Web Site: <http://www.mysql.com/products/workbench/>

ArgoUML is the leading open source UML modelling tool and includes support for all standard UML 1.4 diagrams.

Web Site: <http://argouml.tigris.org/>

Document the completed work. Include UML as CASE tools, clear specifications, used RAD techniques, users, page layout and coding in your documentation.

Assessment Submission Details

This assessment requires the following evidence:

Required documentation to be included in a single compressed archive (**ZIP** or **7z**) file as follows:

- Development source.
- Case tool diagrams
- Database design model
- Any other relevant documents/source code/reports for this assessment.

Submit the compressed archive electronically via edRES submissions section or if otherwise instructed by your assessor/instructor.