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| --- | --- | --- | --- | --- | --- | --- |
| **Student Name** |  | **Student Number** | |  | | |
| **Unit Code/s & Name/s** | ICTSAS503 - Perform systems tests | | | | | |
| **Assessment Name** | Testing Documentation and Testing Reports | **Assessment Task No.** | | | 1 | |
| **Assessment Due Date** | Week 6 | **Date submitted** | | |  | |
| **Assessor Name** | Manuela Perez | | | | | |
| **Student Declaration:** I declare that this assessment is my own work. Any ideas and comments made by other people have been acknowledged as references. I understand that if this statement is found to be false, it will be regarded as misconduct and will be subject to disciplinary action as outlined in the TAFE Queensland Student Rules. I understand that by emailing or submitting this assessment electronically, I agree to this Declaration in lieu of a written signature. | | | | | | |
| **Student Signature** |  | | **Date** | | |  |

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| --- | --- |
| **General Instructions** | **Learning Support**  Additional support is available to help you achieve your learning goals. Speak to your teacher or a Learning Skills Centre team member if you feel that you may benefit from some extra support. The Institute provides extra support through the Disability Support Unit and the Learning Skills Centre.  RPL (Recognition of Prior Learning) is available for this unit. Speak to your teacher/assessor to check if you qualify for RPL.  **Conditions of Assessment**  You will need to complete the learning and undertake all assessments satisfactorily to be deemed competent. You are responsible for complying with all assessment item instructions; submission and collection requirements; undertaking assessment tasks honestly and retaining a copy of all assessment items.  You must submit assessment items by the **due date**, unless an extension has been granted by your teacher. Failure to submit assessment items by the due date will result in a “did not submit” being recorded and depending on your circumstances, you may be granted one final resubmission.  To be judged competent in this assessment item the student is required to demonstrate competence in all indicators shown in the marking guide.  **The Classroom as a Simulated Work Environment**  Students must be aware and take responsibility for the problems of working in a shared IT environment. Problems such as noise levels, production flow, interruptions and time variances are common to workplaces. In the simulated environment provided in the classroom these problems can take the form of:   * Other students who continually ask questions or talk aloud while thinking * Fire drills, projector not working, printers running out of paper or toner cartridge * Miscalculating how much work you can do in one day, missing classes and so on.   Some things are unavoidable and you must devise strategies to overcome them, for example, we cannot stop students from asking questions or entering at exiting the class. Other things are unpredictable (e.g. fire drills). You need to be aware and plan and organise your work allowing some extra time for unavoidable and unpredicted events.  **Assessment Criteria:**  To achieve a satisfactory result, your assessor will be looking for your ability to demonstrate key skills/tasks/knowledge to an acceptable industry standard.  Refer to the marking criteria document for a detailed list of items.    **Number of Attempts:**  You will receive up to two (2) attempts at this assessment task. Should your 1st attempt be unsatisfactory (U), your teacher will provide feedback and discuss the relevant sections / questions with you and will arrange a due date for the submission of your 2nd attempt. If your 2nd submission is unsatisfactory (U), or you fail to submit a 2nd attempt, you will receive an overall unsatisfactory result for this assessment task. Only one re-assessment attempt may be granted for each assessment task, with the exception of Apprentices or Trainees who are permitted an additional supplementary assessment. **For more information, refer to the Student Rules.** |
| **Submission details** (if relevant) | Submit your assessment to the allocated dropbox in **Connect** or to the allocated network folder.  Your teacher will provide all the details for the submission system or network.  Your assignment must be saved with your surname\_student number\_unit/cluster\_AssessmentNumber. For example:  **surname\_1234567890\_ICTSAS503\_1**  For re-submissions, an “R” must be added to the file name. For example:  **surname\_1234567890\_ICTSAS\_1\_R**  The Marking Criteria Sheet must be signed and submitted with your work. |
| **Instructions to Assessor** | To be judged competent in this assessment item the student is required to demonstrate competence in all indicators shown in the marking guide. |
| **Note to Student** | An overview of all Assessment Tasks relevant to this unit is located in the Unit Study Guide. |

# Assessment Instructions:

**PART A - System Testing Documentation**

***Case Study Script***

*As per you Semester 2 Web Project.*

**Your tasks:**

1. Create and send an email to your Project Manager to communicate your intention to start the Test Plan for the Project Testing Phase or Stage of the project’s life-cycle. Obtain program specifications and review the document in preparation for testing of the web application.

Hi project manager I am the tester and I am requesting the program specifications in preparation to test the website

1. Using the program specifications, prepare a **requirements checklist** that you can later use to compare the tested project against the initial project requirements.

* Register form
* Login form
* Upload videos feature
* View profile feature
* Admin delete users and delete videos
* Search for other users and add them as friends
* Search bar to search for videos

1. Based on the scenario above and your interpretation of the program specifications, prepare a **Test Plan** and the **test cases** to test the web application.

The Test Plan must include testing of the **website** plus testing of the **database/website integration**.

The Test Plan and test cases must cover at least four (4) of the following areas:

* Functionality Testing
* Usability testing
* Interface testing
* Compatibility testing
* Performance testing
* Security testing

1. Include in your test plan **what** will be tested in the application, **how** you will test it, what **testing tools** and **testing methods** to use, and the **input data** requirements of the application being tested.

## Functionality-

Functionality of the site includes registering, login, uploading video, editing their profile and adding friends

## Usability testing-

Usability includes searching for videos, login and watching videos

## Interface testing-

Interface elements include testing if the website looks fine in mobile, tablet and monitor sizes also JavaScript elements through the site.

## Security testing-

Security includes the any forms, sql injection and trying to access a page they shouldn’t be allowed to example (“test.php?Admin=panel”)

1. Prepare a **checklist** to build and set up the test environment in accordance to the program specifications and submit a sign-off sheet to your supervisor to verify that the test environment is built and ready for testing.

# Checklist

1. Receive the AUT from the developer
2. Receive test plan
3. Set up suitable environment
4. Begin testing
5. Sign off or rework at a later date then sign off

**PART B – Testing Tools**

1. Research at least five (5) automated website testing tools. For each tool, identify the tool’s name, tool’s key features, the technology it tests, rating and comments section.

You can present this information in tabular format.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **TOOL** | **KEY FEATURES** | **FIT to TEST TECHNOLOGY** | **RATING** | **COMMENTS** |
| Web LOAD |  |  | 4.5/5 |  |
| Apache JMeter | load testing | Website load test | 4/5 |  |
| NeoLoad | very fast, efficient | Website load test | 4/5 |  |
| **Loadster** | Multiplatform tester | Performance | 0 ratings found |  |
| Selenium | create robust, browser based regression automation suites and tests | Usability | 4.5/5 | Lightweight and open source, so it's easy to download. |

The following URLs are a starting point:

<http://www.softwaretestinghelp.com/most-popular-web-application-testing-tools/>

<http://www.softwareqatest.com/qatweb1.html>

1. Research and write a detailed description of the most important tasks that must be carried out during the Testing Stage or Phase of a project life-cycle, in this case, the website project.

**Write 150 words as a minimum.**

The most important aspects of the testing stage of the project are first the planning documentation stage, the planning stage will have to be detailed and accurate to the product that is to be tested, the tester, developer and the project manager will need to be confirmed in the planning document.

The second stage of the process will be defining the aspects of the websites as test cases this will need to be done by the developer because they know which parts will need to be tested.

This stage is the most important it is the stage that tester will run through each test case and will check if any fails and find any defects within the final project and set up a rework test case document if any test cases fail.

The final stage of the website project is the stage that the tester will take his results from the test case document that he/she tested and hand it to the project manager. If any errors are found the error the project manager will take the failed test case document and pass it along to the web developer where he/she will rework any failed test cases. After the developer has reworked the product the test will then re-test. If the no errors are found the project manager, the tester and the developer will sign off the final document and the final product will then be presented to the client.

**PART C – System Testing**

Using the documentation created in PART A – System Testing Documentation, test the website and document the testing.

In summary, you need to:

* Follow the Test Plan
* Use the test report to document each test case.
* Re-test as necessary and document the process.
* Provide signed-off testing reports
* Compare the result with the initial project requirements checklist

Make sure that ALL sections of the test report template are completed as they include:

* Pre-test conditions
* Inputs and outputs
* Test cases
* Methods
* Expected results
* Actual results
* Criticality
* Defects comments/explanations
* Re-tests
* Record of testing (date, time, attendees and so on)