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| **SOUTHERN CROSS UNIVERSITY** |

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| Assignment Title: | **Assessment 1** |
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# Executive summary

Software development needs to be well managed to ensure you achieve the best from the process. Managing software development involves presiding over the development cycle until the deployment phase of the software. The key part to software development is the testing phase. Testing phase ensures that the system adheres to the user requirements and it qualifies all the functional and non-functional properties. The testing process may be in different forms considering the user requirements. One of the main testing strategy deployed in the testing phase is the acceptance testing. Acceptance testing is conducted by the end user to ensure it is performing as they expected. Another testing strategy is the use of black box testing technique.

# Introduction

A Fully integrated software undergoes testing to ensure it fully incorporates all the needed characteristics and to ensure it is fully functional. One of the way to assure client satisfaction is through incorporating testing strategies that assure the client of the system reliability. Software developers incorporate several system testing strategies as they develop software for client. These testing strategies include performance testing, Acceptance testing, black box testing, and functionality testing. All of these testing strategies incorporates both functional and non-functional system testing of the system to ensure that all the features are well implemented in the system.

The case below involves accessing the acceptance testing of a student assignment submission system. Acceptance testing is to be performed on the system to ensure it works according to the user expectations.

## Acceptance testing

Acceptance testing is always performed by the clients who are sourcing the system. For this case, students and the university staff can be used as the key individuals to carry out acceptance testing on the assignment submission system. The acceptance testing involves confirming all the system specifications and functionality of the system. Student assignment submission system acceptance testing will be incorporating the following scenarios that are relevant to the working and user expectation (Cimperman, 2016).

|  |  |
| --- | --- |
| Scenario | outcome |
| Accessing the assignment on the student portal | Student can receive all the assignments over the portal easily  The student can see and click on the assigned assignment  Having different assignments on the portal and can be accessed separately and easily without confusion. |
| Receiving email confirmation of any assignment submission and new assignments | Students can receive email notification by the system once a new assignment is posted on the portal  Students can be notified through the email once the assignment is successfully submitted and once it has been graded by the system. |
| Assignment timeline observance by the system | The system should be able to provide the estimated time for assignment submission  The system should not allow overdue submission of the assignments; it should be able to log off late assignments.  The system should be able to allow resubmission once the student is allowed for resubmission by the tutor. |
| Student can see all the assignment requirements that are needed for assignment submission | The system can check the requirements if they have been met before the assignment is submitted  The system should notify the student if the requirements have been successfully met and suggest for corrections if any. |
| Allow the student to download the assignment to their phone or laptop and also provide drag and drop option while submitting the assignment. | Increasing usability by embedding downloading option in the assignment to allow students to download the assignment.  Drag and drop option provides an easy way for student to submit their assignments in the portal. |
| Allowing draft submission | The student can perform submission of draft assignment prior to submitting the assignment |

## Microsoft 365 excel Detailed Black box testing plan

Black box testing involves finding any error in a software to determine if the system is capable of handling any error. The system notifies the testing specialists of any error encountered in the system while performing some functions. The main aim of black box testing is to ensure the system or software is bug free and to ensure the system gives the required outputs and in case of any errors it is able to handle the situation more appropriately.it is performed manually without interacting with the internal code of the software, this ensures the tester only performs the basic operations on the system to ensure it working and it is providing the required output for a correct input (Saeed et al., 2018).

The case below outlines the Microsoft 365 excel print screen black box testing.

|  |  |  |
| --- | --- | --- |
| Microsoft 365 Excel Print screen | | |
| Scenarios | Tests | Expected result |
| Select printer | Click on the available or required printer | Start the printing process on the printer  Show the number of copies to be printed by the printer |
| Print | Click on the print button  Identifying connected printers  Number of pages to be printed | Show the available printers on the printing screen  Allow the user to select the printer from the available printers  Return error message if no printer to be selected  Allow addition of new printer  It should allow the user to select the number of pages to be printed and it should not allow the user to exceed the number of available pages. |
| Getting the copies | Specifying the number of copies to be printed  Increase or reduce the number of copies  Choose the copies format if portrait or landscape  Identifying if the number of pages that needs copies | Microsoft 365 excel should be able to produce all the required copies and connecting to the appropriate pages that needs to be used for getting copies  It should allow the user to enter the number of copies they need.  Allow the user to increase or decrease the number of copies they need. |
| Page setup | Allow page setting  Allow selecting of page orientation  Modify the default page settings | The software should allow the user to modify the already existing page settings.  The user can chose the page orientations easily |
| Accessing printer properties | See the printer properties  Change some of the printer properties  Choose between the printer properties according user requirements | The dialog should allow the user to access the printer properties for the selected printer.  The dialog box should also allow the user to access different properties of the printer.  In case of unavailable printer, the dialog box should return an error message to warn the user of unavailable printer. |
| Printer ready | Show printer ready  Show capability to capture what to print  Show printer type and its status  Show printer documents queue | The dialog show when the printer is ready to print the document  The dialog should issue a warning to the user if there is nothing to print in the screen.  The dialog should allow the user to see if there are other documents queueing in the system as they awaits printing |
| Exit | User exits the dialog screen successfully  Provide notification on the user | The software should allow the user to exit from the page by clicking the exit button.  Notify the user of any undergoing printing before exiting the page. |

# Configuration management

# Build Management

Building management involves developing a system or interaction platforms and managing them throughout their lifecycle to ensure they meet the user satisfaction.

## Nightly build Mozilla Firefox

Mozilla Firefox developers always write code every day and incorporate them in the Mozilla-central to ensure they keep the Mozilla tested and up-to-date with the evolving user needs. They compile the codes to ensure they keep the users well updated with the current releases until they reach the final update of Mozilla. After every 4 weeks, they release a new version that is well updated and they release it to the millions of the users who use Mozilla. Other platforms should use night build to ensure the keep their systems well updated and tested as the strive to develop the final product (Conception and implementation of "nightly-build" Test environment, 2018).

Mozilla polishes its codes before reaching to the final release of the Mozilla that is released to the users. The process takes around 4 weeks to come up with the final product that is fully functional to the users. The updates are released twice that are distributed to different parts of the world, these updates run on background as the maxilla runs in the system. The updated maxilla reaches to the public as a free licensed product.

**Pros**

Night build has several advantages that are associated with the system developing and testing.one of the main advantage of night build is the convenience it builds while developing codes and updates for the system. The developers can come the next day and continue developing on the previous version that already existed. This convenience helps to develop different versions and having these versions well connected and built from each other.

The other advantage associated with the night build is that, it identifies any problem associated in the code at the early stages of development. The programmers can easily change their code in case of a problem since, nightly build allows them to easily identify the problem and they can easily correct. Lastly, nightly build helps in developing system with well updated versions that are directly related to each other.

**Cons**

Apart from the disadvantages, Nightly build has several disadvantages which includes the following. The new contents or the system changes too quickly before users could adopt the previous version of the Mozilla. The frequent changes leave the users unsatisfied with the content while they try to adopt the new version.

There is always an increase in number of bugs in the new system due to the rapid development, that tries to develop new content without necessarily considering the end users. This process leaves the system with several bugs that makes the system more vulnerable at each update.

The previous versions of nightly build are mostly considered more stable hence introduction of newer versions leads to users running to new version which is full of bugs and unstableness.

# Request for Proposal (RFP)

## Background

Aussie Business Buzz is an organization that specializes in dealing with technology devices that looks to enrich its customers with the best technology. The Company offers different services through deployment of systems to manage their sales and customers. The organization looks to serve different customers more efficiently through integrating more sophisticated system in their operation. They look to ensure they provide the best customer experience through incorporating a multifunctional integrated system. The company has several other branches including 6 shops that needs to be integrated in the company system.

## System description

The integrated system to be developed incorporates several aspects that are different from the existing system. the integrated system will contain the information of the existing 6 shops of the ABB company. The first specification will include the customer relation database, this specification will help in designing the and managing the customer request through recording the items purchased by different customers to ensure they keep the customer record. The system will integrate a marketing system that will be used in offering marketing plan for the company through email integration and social media connections. This aspect will help in providing he company with the track of marketing strategies. Stock management system will also be incorporated in the integrated system to ensure that all the available stock in the 6 shops are well recorded in the system. This will help track the increase in stock and reduction in stock in the overall company shops. The system will help in offering management decisions through provision of reports based on different aspects in the company.

Project goals

* Developing a reliable system that can be used by the 6 shops
* Increasing customer satisfaction through the integrated system
* Implementing marketing strategies through the integrated system

Evaluation Criteria

The appropriate way of eliminating vendors who does not meet the expectations of the company can be easily eliminated. The company will be considerable on the articulated system specifications. The hiring team in the company will articulate the system specification as the key to elimination of vendors. The vendors with genuine specifications as outlined can be considered for the next step. The other evaluation criteria to be implemented is the required budgeting strategies, vendors with genuine budget can be considerable based on the system requirements. The timeline for delivery can be another criterion that will be implemented in evaluation criteria, vendors with the shortest timeline will be considered for the selection.

Answering of questions

ABB provides customer support, the process of keeping in touch with company is through the official email of the company. The company will be offering webinar sessions with the vendors to ensure the company answers all the questions raised by the perspective individuals concerning the system outsourcing and development.

Budget

The development process is estimated to spend $60000 hence any vendor may be recommended to stick on the provided budget.

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# Conclusion

Software management incorporates from development stage to the testing stage of a software. Different companies have different strategies of organising their software as they develop or outsource them. Software can be integrated to incorporate several other systems that work to achieve a common goal of the system. Testing of these integrated systems is crucial since it ensures that everything is well incorporated and it ensures the overall system is working according to the user expectation. Several testing are incorporated in a system to ensure it meets all the specification and requirements and hence it can have deployed to work.

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