# MANAGING SOFTWARE DEVELOPMENT

# **ISYS3001 ASSESSMENT 2**

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# 1. Code/File version management

GitHub account name: julislopes

# 2. Building management

#### 2.1. Mozilla Firefox Nightly

Mozilla Firefox nightly is an unstable testing and development platform as every day, Mozilla developers write code that is merged into a common code repository (Mozilla-central) and every day that code is compiled to create a pre-release version of Firefox based on this code for testing purposes, this is what it is call a Nightly build. This gives the active and curiosity users a chance to get a sneak peek at the next Mozilla Firefox generation web browser in exchange of helping the company to build the best Mozilla Firefox browser can be.

Once this code matures, it is merged into stabilization repositories (Beta and Dev Edition) where that code will be polished until Mozilla reach a level of quality that allows them to ship a new final version of Firefox to hundreds of millions of people. This means that volunteer users to the Nightly version will be able to access, test all new high-end features that are still being developed, long before it arrives for the main Firefox browser (standard version) and report bugs on this version.

### 2.2. Open-Source Advantages and disadvantages (Client view)

The main advantage for the client looking to develop an open-source browser is that he can actively participate in all the stages up to the final version of the new system which means that he can check the progression frequently and quickly request changes or updates to the system without having to wait for a long period of time. In addition, both the client and the developers will be able to get the feedback from users frequently, avoiding wasted money and time developing features that will not be useful in the final version.

However, managing a building system can be an arduous task, as the cooperation between the team needs to be seamless, to ensure that the system works as expected and at the desired time. As disadvantages, the system can be very unstable, as if necessary, updates will be made daily which can annoy users. Other than that, it may have a bad documentation and it can take longer than expected to release the final version.

# 3. Request for Proposal (RFP)

#### 3.1. Business Information

Aussie Business Buzz (ABB) is a retail business which sells and repairs different types of technology products and accessories. For an expansion of the business, they are looking for an integrated system to support their 4 branch shops, but already thinking on futures business opportunities to grow.

#### 3.2. Business Functions

ABB does not have an integrated system. This means that communication between branches is almost non-existent. For this reason, ABB is looking for a new integrated system to improve its daily workflow. The main functionality of this system is to assist them with inventory control of the whole organisation. However, when developing the new system, it must also be considered:

#### - Sales Reports

The system will be able to provide sales reports. This will assist the business on how to grow faster as better planning its production, distribution, and staffing will bring less costs and more profit.

#### - Customer Relationship

The system is expected to keep record of the problems reports, work history, and purchasing history of the products.

#### - Marketing and communication

A renovated webpage and app will use this new integrated system. So, customers will be able to see in real time what product/service is available and on which branch location and purchase them if they desire. The shipment service will be available to customer, but they can select store pick up.

Marketing emails with news and relevant information will be sent to customers who have sign up on ABB website.

#### 3.3. System Vision Document

#### 3.3.1. Problem Description

Aussie Business Buzz sells a variety of technology products and mobile accessories and provides devices repairs. It has 4 branches. ABB wants to expand its business, but the problem is that the branches do not communicate well, as there is no integrated system. That is, they probably lose lots of sales due to the lack of a management system to understand the demands, and all stock and staffing available to distribute them in the best way for the business. It also might make than lose the chance of bargain with their suppliers when placing orders which gives advantage to competitors who better manage their inventory and staffing. Without an integrated system, the marketing strategy does not reach its full potential as there is no precise reports about sales, stock and company-wide profit and loss.

#### 3.3.2. System Capabilities

The new system should be capable of:

- Collecting and storing details about customers, staff, and suppliers from all branches
- Generate sales and stock control reports
- Collecting and storing information about products
- Collecting payment from customers through the website or app
- Send emails/ messages to customers to inform them about product or service news or promotions

#### 3.3.3. Business Benefits

ABB seeks an integrated system that brings a better understanding of the business, so branches can link their stock, staff, and share reports. This will improve sales and add more convenience to customers looking to buy a product that is out of stock at one of the branches or that does not provide the necessary service.

The implementation of an integrated system will provide the following benefits to ABB:

- Improved customer experience.
- Better time management for CEO and team How they will be able to see product availability and location, generate sales reports
- Increase in sales, as customers will be able to know where the product and service is available and order online.
- Adequate management of financial and organizational data and statistics with an integrated quality system. Providing them with more time and clear information about the popularity of products and services in each location to expand their business (opening new branches).

#### 3.4. ABB Project Management

The System Vision Document described in topic 3.3 will be used as a criterion for evaluating the supplier's proposal. Deadlines will be created for each stage of the project to avoid delays. In addition, meetings will be scheduled with the client to provide updates on the project at the end of each stage or whenever necessary or requested. On the work break down (WBS) below, we can check how many days is going to be necessary to complete this project. However, if requested for a higher cost, the duration of the project can be reduced to attend the needs of the business. The duration of the days that you see in orange or blue means that the tasks will be completed simultaneously for each stage.

Work Break Down	
Tasks Description	Duration
Identify the Problems/ Needs	8 days
Vendors Interview to define the project	1 day
Customers Survey	3 days
Orders and Payment Transactions Study	1 day
Review Business Records and Observe Business Operations	3 days
Report Preparation for vendor	1 day
Vendors ' Approval	2 days
Plan and Monitor	2 days
Develop a plan	2 days
Estabilish Work Environment	1 day
Identify and Acess Risk and Feasibility	1 day
Analysis	3 days
Check Documentation	1 day
Define and Prioritise Requirements	1 day
Identify Costs/ Benefits	2 days
Risks Analysis	2 days
Design	5 days
Design the integrated System	5 days
Implementation	5 days
Software Development	5 days
User Manual	1 day
Include the data and information	2 days
Testing and Deployment	4 days
Performance	2 days
Reliability	2 days
User Test	4 days
Close Down Project	
Total Project Duration	27 days

Figure 1: ABB's Integrated System WBS

The interview agenda created below is going to be used in the vendors interview to understand what it is expected from this project.

## **Discussion and Interview Agenda**

#### **SETTING**

#### **Objective of Interview**

Identify all the process and problems related to ABB business.

#### **Date, Time and Location**

September 30, 2022, at 8:00 to 10:30 AM in ABB's office

#### User Participants (names and titles/ positions)

ABB's CEO

ABB's store managers

#### **INTERVIEW/ DISCUSSION**

- **1.** From your point of view, how would you describe the processes of order, sales, stock control of the ABB's branches? What do you think would need to be improved in those process?
- 2. How many employees are on each branch? Which task each of them do?
- **3.** Describe the daily problems of the branches.
- **4.** How each branch manages the stock in store?
- 5. How much each store makes as profit? And what costs are involved for each branch?
- 6. How does each branch document and store information about customers, sales, products, and services?
- 7. What do you expect from the new integrated system?

#### **FOLLOW-UP**

#### Date and time of next meeting or follow-up session

Estimated 8 days after this interview (To be confirmed)

#### 3.5. Conclusion and Recommendations

After user testing, a final system assessment will be carried out to check for possible problems or improvements. Upon completion of the project, over the next 6 months, the development team will track user engagement to make the latest system improvements to release the final version of the system.

# Reference

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