

Comp2151 Lab Exercise4: Project Implementation Plan

Prioritized Product Backlog

MoSCoW Task Categorization

Story to Task Mapping

Duration: 2 weeks

Case Study: ABC Clinic (provided at the end of this document)

Project Implementation Plan:

The main item in the prioritized product backlog is **user stories**. These stories are written in the form of “user goals” or what the user would like to achieve by using the system.

The **product backlog** may also contain technical work, bug fixes, and knowledge acquisition components. Each story becomes a feature of the software system and has to be broken down into tangible tasks to be assigned to various team members. Tasks may have dependencies and estimated durations and the Implementation plan contains all that information.

Lab Deliverables:

Please create the following three items and then add everything in one MS Word (pdf) file for group submission through Blackboard.

1. Create a **prioritized product backlog** for ABC clinic (use **Business Value Addition** as the criterion for Prioritization and the **Planning Poker** technique to decide item priorities: as done in Lab3).
2. Create a **MoSCoW model** (for story/task categorization)
[VP- Diagram Navigator - Project Management]
3. Create project implementation plan by doing **Story to Task mapping**. Create a Table in which u first add a story from the Backlog(part1) and then add all

tasks for this story and repeat for all stories. [\[as shown in the following example\]](#)

Example of Story to Task mapping

In order to implement a user story the development team has to create various components in all of the architectural layers (MVC) of the system. The tasks are the actual work needed to be done on each of the components in order to implement a story as a software feature.

User Story: As a patron I should be able to search items in the system so that I can reserve an item online.

Tasks

1. Create new class Search that contains an overloaded method that retrieves library items description and availability based on any provided search criteria (Author, Title, Subject etc.)
2. Upgrade the Visual Studio software on teams' laptops to add the DotNet module for ASP.NET database connectivity (or you may use PHP).
3. Team members take a full day course on ASP.NET
4. Create database connectivity by writing an SQL string (using ASP.NET) to connect and retrieve searched items from relevant tables in the database.
5. Test the search method by providing various search terms.
6. Fix the bugs in the code, found during testing
7. Install php storm on team members' laptops for creating web pages.

8. Create web pages for entering and returning search items and link these pages to the main library website.
9. Test the search feature from selecting the search menu item from the main library page and then searching an item by providing various search criteria.

Appendix

Template and Example for a Prioritized Product Backlog

Prior ity	Product Backlog Items	User Story #	User Story
1	Database Creation	9	As an operations engineer, I want to be able store all customer information, so that I can serve to customers.
2	Login Page	15	As a site member, I want to login the site, so that I can do online shopping.
3	Category Page	23	As a site member, I want to be able to look for different categories of brands, so that I can choose what I want.
4	Payment Process	18	As a site member, I will be able to make payment, so that my deliveries can be shipped.
5	Contact Page	3	As a site member, I want to be able to find contact information of the site, so that in case I need, I can contact.
6	Banner Area	1	As a marketing personnel, I want to be able to make advertisement, so that I can attract visitors



estimated priority

<https://masterofproject.com/>

MoSCOW Method for Task Prioritization

Reference: warren2lynch.medium.com

Mo

MUST HAVE

The most vital things you can't live without

S

SHOULD HAVE

Things you consider as important, but not vital

Co

COULD HAVE

Things that are nice to have

W

WON'T HAVE

Things that provide little to no value you can give up on

ABC Clinic Case Study

Your company has been awarded the contract to create a **“Clinical Management System”** software using Object Oriented /Unified Process methodology for the **ABC family medicine and walk in clinic**. Some members of your team interviewed the client; the clinic manager, to collect requirements about the proposed system and took the following interview notes.

Case Description by clinic manager

I am building a new family medicine and walk-in clinic (ABC clinic) in the Greater Toronto Area. We are anticipating to serve to approximately 1500-2000 patients per week on the average. We will initially have ten physicians (doctors), six nurses and eight receptionists and two Assistant managers to help me in running the day to day affairs of the clinic. Our clinic will be open 9a. to 7p.m Monday to Saturday.

I have almost twenty (20) years’ experience of managing medical clinics. We would like to store patient related data electronically as there is a governmental regulation to store and safeguard patients’ information for confidentiality and privacy reasons. I have seen some very sophisticated software systems implemented in some clinics which offer almost all electronic features and are practically paperless and would like to have something like that for our clinic. Our Budget is 1 million dollars and the system should be implemented by 1 September 2020.

Based on our discussion today I am summarizing the main functions that we would like to have in the software. I might forget to mention some items here and in case you need further information/clarification please don't hesitate to contact me at any time (as a group or in the class/lab). I might also send you any additional information at a later stage.

Our business motto is to deliver best possible healthcare to our patients and we hope that the system that your team will develop will help us achieve excellence. I would be delighted to answer any further questions from your side and please let me know in case you would like to interview other potential user (doctors, nurses, and receptionists) and I will arrange it as well.

New Patients will have to call the clinic to book an appointment with a physician and if they decide may become permanent patients of one of our physicians by filling up Ministry of Health's forms. We are required to send these paper forms to the ministry (and keep one copy for our records). Once they become permanent patients, they can either book, cancel or reschedule an appointment either online or by calling the front desk. Once booked an appointment can only be cancelled or rescheduled until 24 hours before the scheduled time. No shows or missed appointments are charged 30\$ Patients do not have to pay for medical services in Canada however they are certain items that are not covered by the government and the patients will be required to pay for these services such as medical/sick notes, travel vaccinations etc. We will accept payments in cash or via a major credit card.

Patients may also come as a walk-in patient during the business hours and are put in the queue for the first available physician at that time (They cannot book a walk-in appointment). The system should keep a track of patients' appointment and change the status accordingly: booked, cancelled, arrived, Checked IN, Checked OUT, LWT(left without treatment), No show etc.

Walk in patients are checked in, placed in the queue and are seen by the next available doctor. There are two exceptions to this process; a patient may request to be seen by a particular doctor and a patient may jump the wait line in case of an urgent need i.e. the triage process (i.e. chest pain, wound treatment etc.). The default time slot for patient appointment with doctor is 15 minutes but patients with special circumstances can be scheduled for double time (30 minutes).

The system should store patients' basic information including her name, address, contact, health card, and his or her previous history of visits, treatment, medications, and lab results. Upon arrival (both scheduled and walk in) the receptionist would verify each patient's health card in real time (linked directly with ministry's system), address and contact details and then the secretary marks "checked in" status. At the end of the appointment, the secretary marks a "check out" status.

The nurse will then take the patient to an examination room and enter his or her temperature, height, weight blood pressure and brief history of

problems/symptoms and notes it down in the system. The patient is then seen by a doctor who would enter patient's complaints/symptoms, diagnosis and medications prescribed.

The doctor should be able to do the following three tasks either by generating a print out from the system (and hand it to the patient) or send directly to the external party electronically (if the third party offers an electronic interface).

- a. Prescriptions (print out given to the patient or sent to the pharmacy electronically)
- b. Lab Requisitions (print out given to the patient or sent to the Laboratory electronically: and receiving the test results back electronically as well).
- c. Specialist Referrals (print out given to the patient or sent to Specialists doctors' offices electronically: and receiving the specialists notes/letters back electronically as well)

The system should be able to store scanned copies of paper documents in some situations (for instance: in case of receiving paper based lab results/specialist letters.

In case of any abnormal lab test results, patient should be recalled back to the clinic immediately to be seen by a doctor and discuss the results. The system should keep a track of all the calls made or messages sent to the patient by the clinic.

The physicians are paid directly by the government for the services rendered to the patients. The system should provide the capability for the doctors to bill the government for their services and see their payments.

There are however some patients who do not have government health coverage and they may pay cash, or may have coverage by an insurance company and the system should provide the Accounts Receivable and payable functionality for these and other cash payments (non-covered services mentioned before).

The system should also provide reports about patients, visits, financial accounts, usage statistics etc.

My job responsibilities as a manager include scheduling doctors, nurses and receptionists/secretaries for shifts. I calculate the number of hours worked for each non salaried employees (except doctors off course). I then provide this information to our accountant (external company hired by the owner) and they take care of payrolls and salaries. Full time employee's salaries and payroll is also managed by our accounting firm.