18P9654 G2S2
LAILA MOHAMED ABORIZKA

MAJOR TASK
AGILE SOFTWARE ENGINEERING REPORT

HOSPITAL MANAGEMENT SYSTEM

This project is a web based hospital management system consisting of Registration portal for assigning patients, consultation, Medical matter management , Check out, Report generation, and a database that holds all the important info for the hospital.The software product is the Hospital Management System web based. The intentions of the system are to reduce over-time pay and increase the number of patients that can be treated accurately.As well as offer users a handy and user friendly tool so that they can achieve best performance in the hospital.

PART ONE

The team consists of 10 people divided into 4 teams (front-end developers, backend developers, testing team, UI designers).

Name	Role	Expertise
Laila Mohamed	Front-end developer	HTML, CSS, Javascript, Experience with CSS Preprocessors, problem solving skills.
Farida Abdelfattah	Front-end developer	HTML, CSS, Javascript, Git and Version Control Systems.
Nada Fawzy	Tester	Testing and debugging, Problem solving, Creating documentation, Automation testing.
Hana Abo el Ezz	Tester	Testing and debugging, Problem solving, Creating documentation, Agile testing.
Noor Ashraf	Back-end developer	Python, Java, PHP, SQL, Cross-Browser Development.
Ashraf ahmed	Designer	Invision studio, research, prototyping and wireframing, typography.
Mohamed Soliman	Designer	Branding, Visual design, Interactivity and animation
Alaa mohamed	Back-end developer	Databases and Cache, Data structures and algorithms , python, Git, Java, HTML, CSS.
Doaa Gameel	Back-end developer	Python, Java, PHP, SQL, HTML, CSS , Javascript.
Yassin Shalaby	Front-end developer	HTML, CSS, Javascript, Git and Version Control Systems, Content Management Systems and E-commerce Platforms

- The possible stakeholders are

    External: Hospital management (customers), doctors and hospital workers (users), Funding Partner (An organization that provides financial support for the company and its projects), product owner.

    Internal: Account and Sales Manager.

Name	Role	Availability	Influence	Engagement
Product manager	External stakeholder	high	high	Actively engaged
Account and sales manager	Internal stakeholder	high	High	Keep informed
Hospital management	External stakeholder	low	high	Keep informed
Doctors and workers	External stakeholder	Low	Low	Keep satisfied
Funding partner	External stakeholder	low	High	keep informed

- The complete vision of this project is to deliver the hospital management system fully functional without bugs and to integrate it within the hospital system. This is going to be done over the course of several months. So to begin the **near vision** for the 2 upcoming sprints will be :

    - Note that a sprint is two weeks which is 12 available days/sprint. Assuming each day has 5-7 hours/day (all team members work in the same range) so the sprint is around 60-84 working hours

    - **Sprint 1** : homepage and portals are ready and part of the registration and consultation : receptionist should be able to

        - Add patients.

        - Manage waiting list

    - **Sprint 2** : The rest of the registration functions and part of the medical matter management ; a user should be able to :

- Receptionist able to Assign patients to their ward in the correct hospital section.

- Receptionist able to Check patients out.

- Doctor and nurse able to view their surgery and emergency tasks from a task viewer.

- Doctors and nurses should be able to record procedures.

Story point convention:

We assume that 1 story point takes 1 hour

Story points are estimated following fibonacci series

Small size story : 1,2,3 points

Medium size story: 5,8,13 points these are stories no:8,4,6,9,10,12,11,14,15,16

Large size story : >13 these are stories no: 13

Backlog (11 issues)		133	0	0	Create sprint
MT-8 Homepage USER PORTALS		13	TO DO ∨		
MT-4 portal interface design USER PORTALS		13	TO DO ∨		
MT-6 portals navigation and button activation USER PORTALS		8	TO DO ∨		
MT-9 add patient PATIENT MANAGEMENT		13	TO DO ∨		
MT-10 waiting-list management PATIENT MANAGEMENT		8	TO DO ∨		
MT-12 Ward management PATIENT MANAGEMENT		13	TO DO ∨		
MT-11 check-out PATIENT MANAGEMENT		5	TO DO ∨		
MT-13 tasks-Viewer MEDICAL MATTER MANAGEMENT		21	TO DO ∨		
MT-14 procedure recording MEDICAL MATTER MANAGEMENT		13	TO DO ∨		
MT-15 Report Viewer MEDICAL MATTER MANAGEMENT		13	TO DO ∨		
MT-16 Notifications MEDICAL MATTER MANAGEMENT		13	TO DO ∨		

User portals /
MT-8

Homepage

To Do ⌄

Description

As a user I want to view the hospital's homepage when the system first opens. Through this page would like to view hospital's news and login to my portal.

User portals /
MT-4

portal interface design

To Do ⌄

Description

As a user I want to have a user friendly and eye catching design for my portal.

User portals /
MT-6

portals navigation and button activation

To Do ⌄

Description

As a user I want to be able to smoothly navigate between page sections in the same page and between different pages.

patient management /
MT-9

1

add patient

To Do ⌄

Description

As a user (receptionist) I want to be able to add a patient to the system when the patient arrives at the hospital

patient management /
MT-11

1

check-out

To Do ⌄

Description

As a user (receptionist) i want to be able to remove any unnecessary data from the system when the patient checks out.

Medical matter manag... /
MT-13

1

tasks-Viewer

To Do ⌄

Description

As a user (doctor, nurse) I want to be able to view the surgery and emergency cases I am assigned to.

7

⚡ Medical matter manag... / 🔖 MT-15

🔓 👁 1 👍 ⤴ ⋯ ✕

Report Viewer

📎 🔗 ⋯

To Do ⌄

Description

As a user (doctor, nurse) I want to be able to view my patient's updates and their condition in details.

⚡ Medical matter manag... / 🔖 MT-16

🔓 👁 1 👍 ⤴ ⋯ ✕

Notifications

📎 🔗 ⋯

To Do ⌄

Description

as a user i want to receive notifications for emergencies and all important details.

patient management /
MT-10

waiting-list management

To Do ⌄

Description

As a User (receptionist) I want to be able to manage a waiting list; add and remove patients. when there is no place in the hospital I want to assign patients to the waiting list and remove them from the waiting list when a place is free.

patient management /
MT-12

Ward management

To Do ⌄

Description

as a User (receptionist) I want to be able to assign patients to their wards.

Medical matter manag... /
MT-14

procedure recording

To Do ⌄

Description

As a user (doctor, nurse) I want to be able to record any procedures and decisions i take. the surgery and emergency cases I am assigned to.

The order is according to the priority and what's important so first of all

1- There is no system without a homepage that lets users view news and login from it

2- Secondly portals have to be finished before the functionalities are implemented because each user will communicate with the system through their own interface

3-the interface has to be designed first

4-then there has to be smooth navigation between pages and buttons so that the user can move from one page or function to the other and interact with the system

5- then receptionists functionalities(patient management) have to be covered first because they are the most needed in the hospital to handle the amount of patients coming in and out of the hospital and keep track of them

6- after that Medical matter issues are handled the most important one is viewing tasks because it is needed to keep orders and nurses on track properly

7- followed by procedure recording report viewing and notifications as they are of lower importance to the hospital in the time being

Part 2:

Note that a sprint is two weeks which is 12 available days/sprint. Assuming each day has 4-6 hours/day (all team members work in the same range) so the sprint is around 48-72 working hours

We assume that 1 story point takes 1.5 hours and since our sprint is 60-84 hours so the team covers 40-56 story points

Daily scrum document

Team member	Questions	Mon	Tues	Wed	Thurs
Laila Mohamed	What did you do yesterday?	Coded the front -end for doctor portal	Coded front end for the nurse portal		
	What're you doing today?	Code front end for the nurse portal	Work on navigation		
	Is there something blocking you?				
Farida Abdelfattah	What did you do yesterday?	Coded the front -end for receptionist portal	Coded the front -end for manager portal		
	What're you doing today?	Code front end for the manager portal	Work on navigation		
	Is there something blocking you?				

Team member	Questions	Mon	Tues	Wed	Thurs
Nada Fawzy	What did you do yesterday?	Tested homepage	Tested the front -end for doctor portal		
	What're you doing today?	Test the front -end for doctor portal	Test front end for the nurse portal		
	Is there something blocking you?				
Hana aboelEzz	What did you do yesterday?	Tested homepage nav	Tested front end for the receptionist portal		
	What're you doing today?	Tested front end for the receptionist portal	Test front end for the manager portal		
	Is there something blocking you?				

Sprint document 1:

Goal: homepage and portals are ready and part of the registration and consultation related to assigning patients .

Progress: done

Next sprint: finish rest of the registration functions and part of the medical matter management related to viewing tasks.

Sprint document 2:

Goal: finish rest of the registration functions and part of the medical matter management related to viewing tasks.

Progress: done

Next sprint: complete medical matter management functionalities

Workflow:
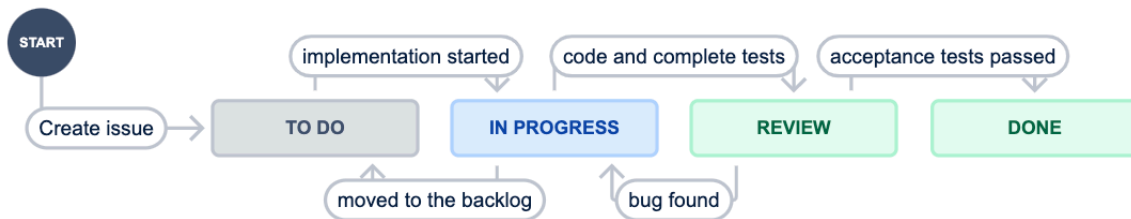
- Workflow starts by creating issues and prioritizing them

- Start sprint with implementing till we have a part that is ready ready to review.

- If a work in progress faces a problem or still needs other things it could be moved to the backlog

- We review this part if it passes then it is done if the tests fail then it is till in progress.

- Anything that is done is not edited again it is ready to deliver .

Sprint1:

MT Sprint 1 ✎ Add dates (5 issues)	55 0 0	**Start sprint**	...

🔖 MT-8 Homepage **USER PORTALS**	13 **TO DO ⌄** 👤
🔖 MT-4 portal interface design **USER PORTALS**	13 **TO DO ⌄** 👤
🔖 MT-6 portals navigation and button activation **USER PORTALS**	8 **TO DO ⌄** 👤
🔖 MT-9 add patient **PATIENT MANAGEMENT**	13 **TO DO ⌄** 👤
🔖 MT-10 waiting-list management **PATIENT MANAGEMENT**	8 **TO DO ⌄** 👤

+ Create issue

TO DO 5 ISSUES

Homepage
USER PORTALS
🔖 MT-8   13

portal interface design   ...
USER PORTALS
🔖 MT-4   13

portals navigation and button
activation
USER PORTALS
🔖 MT-6   8

add patient
PATIENT MANAGEMENT
🔖 MT-9   13

waiting-list management
PATIENT MANAGEMENT
🔖 MT-10   8

14

Day 3:

TO DO 4 ISSUES

portal interface design

USER PORTALS

📗 MT-4   13

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portals navigation and button activation   •••

USER PORTALS

📗 MT-6   8

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add patient

PATIENT MANAGEMENT

📗 MT-9   13

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waiting-list management

PATIENT MANAGEMENT

📗 MT-10   8

IN PROGRESS 1 ISSUE

Homepage

USER PORTALS

📗 MT-8   13

Day 5:

TO DO 3 ISSUES

portals navigation and button activation

USER PORTALS

📗 MT-6   8

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add patient   •••

PATIENT MANAGEMENT

📗 MT-9   13

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waiting-list management

PATIENT MANAGEMENT

📗 MT-10   8

IN PROGRESS 1 ISSUE

portal interface design

USER PORTALS

📗 MT-4   13

DONE 1 ISSUE ✓

Homepage

USER PORTALS

📗 MT-8   ✓ 13

Day 8:

TO DO 1 ISSUE	IN PROGRESS 1 ISSUE	DONE 3 ISSUES ✓
waiting-list management PATIENT MANAGEMENT 📗 MT-10 8	**add patient** PATIENT MANAGEMENT 📗 MT-9 13	**Homepage** USER PORTALS 📗 MT-8 ✓ 13
		portal interface design USER PORTALS 📗 MT-4 ✓ 13
		portals navigation and button activation USER PORTALS 📗 MT-6 ✓ 8

Day 12:

TO DO	IN PROGRESS 1 ISSUE	DONE 4 ISSUES ✓
	waiting-list management PATIENT MANAGEMENT 📗 MT-10 8	**Homepage** USER PORTALS 📗 MT-8 ✓ 13
		portal interface design USER PORTALS 📗 MT-4 ✓ 13
		portals navigation and button activation USER PORTALS 📗 MT-6 ✓ 8
		add patient PATIENT MANAGEMENT 📗 MT-9 ✓ 13

Sprint 2:

Day 3:
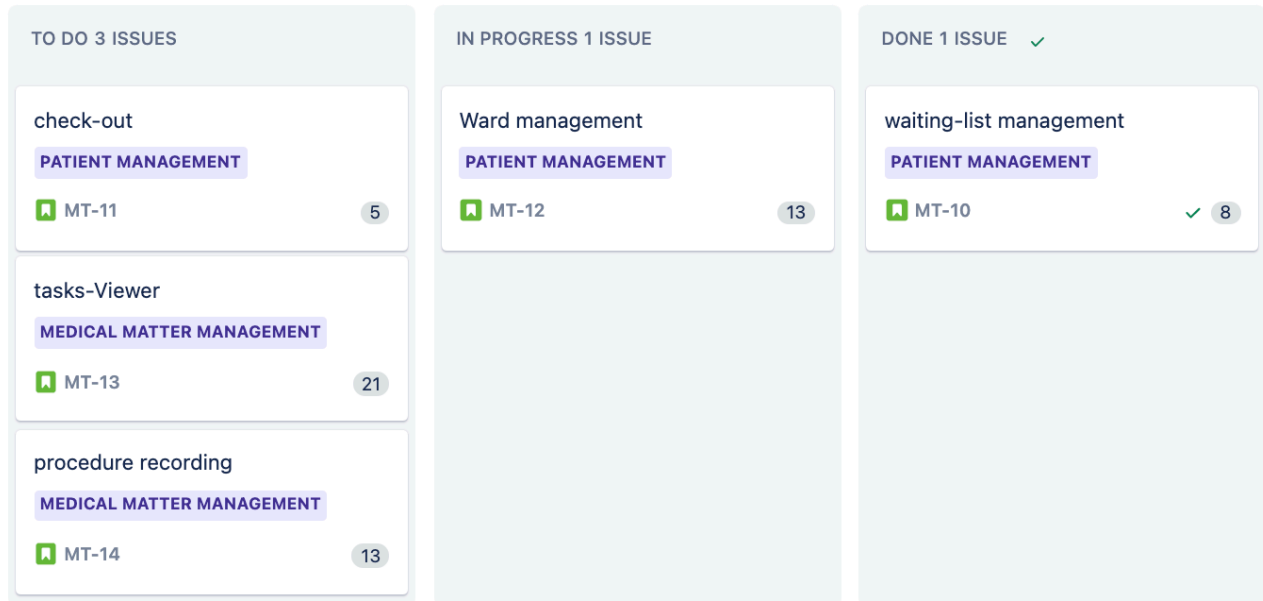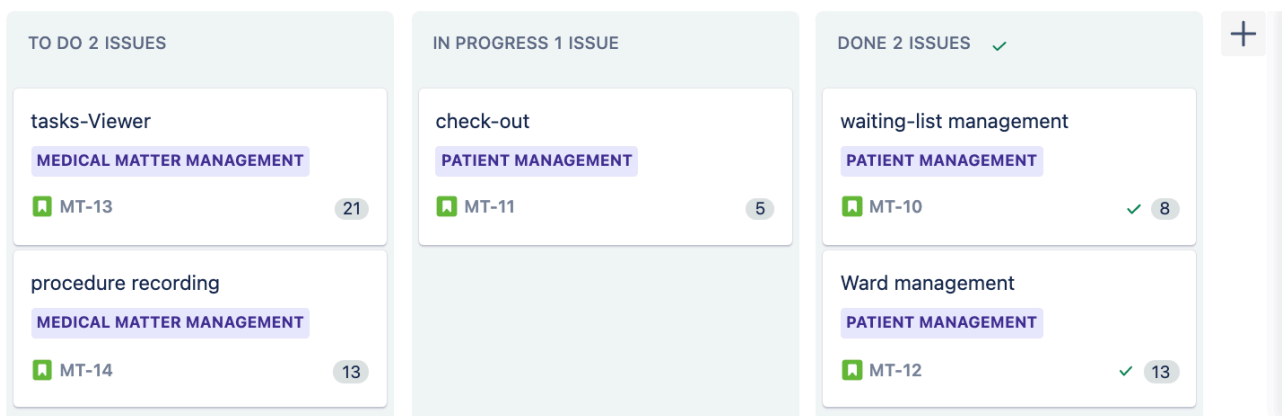
TO DO 3 ISSUES	IN PROGRESS 1 ISSUE	DONE 1 ISSUE ✓
check-out PATIENT MANAGEMENT 🔖 MT-11 (5)	**Ward management** PATIENT MANAGEMENT 🔖 MT-12 (13)	**waiting-list management** PATIENT MANAGEMENT 🔖 MT-10 ✓ (8)
tasks-Viewer MEDICAL MATTER MANAGEMENT 🔖 MT-13 (21)		
procedure recording MEDICAL MATTER MANAGEMENT 🔖 MT-14 (13)		

Day 5:

TO DO 2 ISSUES	IN PROGRESS 1 ISSUE	DONE 2 ISSUES ✓	+
tasks-Viewer MEDICAL MATTER MANAGEMENT 🔖 MT-13 (21)	**check-out** PATIENT MANAGEMENT 🔖 MT-11 (5)	**waiting-list management** PATIENT MANAGEMENT 🔖 MT-10 ✓ (8)	
procedure recording MEDICAL MATTER MANAGEMENT 🔖 MT-14 (13)		**Ward management** PATIENT MANAGEMENT 🔖 MT-12 ✓ (13)	

Day 8:

TO DO 1 ISSUE	IN PROGRESS 1 ISSUE	DONE 3 ISSUES ✓	+
procedure recording MEDICAL MATTER MANAGEMENT 🔖 MT-14 13	**tasks-Viewer** MEDICAL MATTER MANAGEMENT 🔖 MT-13 21	**waiting-list management** PATIENT MANAGEMENT 🔖 MT-10 ✓ 8 **Ward management** PATIENT MANAGEMENT 🔖 MT-12 ✓ 13 **check-out** PATIENT MANAGEMENT 🔖 MT-11 ✓ 5	

Day 12:

TO DO	IN PROGRESS	DONE 5 ISSUES ✓
		waiting-list management PATIENT MANAGEMENT 🔖 MT-10 ✓ 8 **Ward management** PATIENT MANAGEMENT 🔖 MT-12 ✓ 13 **check-out** PATIENT MANAGEMENT 🔖 MT-11 ✓ 5 **tasks-Viewer** MEDICAL MATTER MANAGEMENT 🔖 MT-13 ✓ 21 **procedure recording** MEDICAL MATTER MANAGEMENT 🔖 MT-14 ✓ 13