PROJECT ANALYSIS

HOSPITAL LEAVE SYSTEM

CPIT250

Team:

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Section: AAR

METHODOLOGY SELECTION

The methodology our team selected is agile methodology. We selected it for multiple reasons

- We assigned to do this system because we are responsible and motivated developers and that is why it is more appropriate for us to use this methodology
- Our group consist of three students. it's suitable for the teamwork
- We need a review process associated with the completion of iterations.
- It is a self-adaptive process. The system we are working on require consistent changes and editing
- We need to deal with the lack of predictability, which all Agile Methodologies share, is iterative development.

PROBLEM DESCRIBTION

One of the systems the hospital uses has a lack of booking information for employees from different departments in the hospital. They use a manual leave request system to fill forms. The main problem is about employee vacations, their types, number of days, and how to calculate what is taken from them and what remained of them for each employee in the department. Below we have included employee categories and leaves types in addition to the number of vacation days allowed for each employee.

- **Employee categories:**
  1. Saudi employee
     a. Military employee
     b. MSD Civilian employee
     c. Contracted civilian employee
  2. Non-Saudi
     a. Contracted employee

- **Leaves Types:**
  1. Annual leave.
  2. Emergency leave.
  3. National day leave.
  4. Eid Alfitr leave.
  5. Eid Aladhha leave.
  6. Casual leave.
  7. Leave in Leo for overtime working.

- **The number of vacation days allowed for each employee**

	Saudi employee	Military employee.	MSD Civilian employee.	Contracted civilian employee	Non Saudi	Contracted employee
Annual leave.		45	36	30		30
Emergency leave.		10	5	10		10
national day leave.		1	1	1		1
Eid Alfitr leave.		11	11	11		4
Eid Aladhha leave.		11	11	11		4
Casual leave.		10	0	0		0
leave in Leo for overtime working.		0	1 hr = 1hr	1hr = 1.5hr		1hr = 1.5hr

SOLUTION STATEMENT

We decided to create a website that contains the Leave system for all employees, their types, number of days, and calculations related to employee vacations.

The website has collected all employee's Leave systems from different departments into one. In addition, each department has an administrator who has superior access to the website to confirm the request or decline it.

The website has multiple features that allow the admin to access employees' requests and employees' vacation records with remained days plus status. It also has features for employees to make leave request and view their vacation records, remained days, and request status. The website works as follow for the employee point of view:

- The website home page has a login request for id and password.
- The employees can log in easily and start using the website for self-service.
- There is a Leave request section; it has a filter option to choose which department the employee works for.
- After choosing the department, the employee can choose which type of leave request.
- The Leave request contains an empty form of leave description and how many remaining days left.
- After filling the form, the employee may proceed to send it to administrators.
- The administrator of the selected department will receive the request and proceed to accept or decline.
- The employee receives their request status
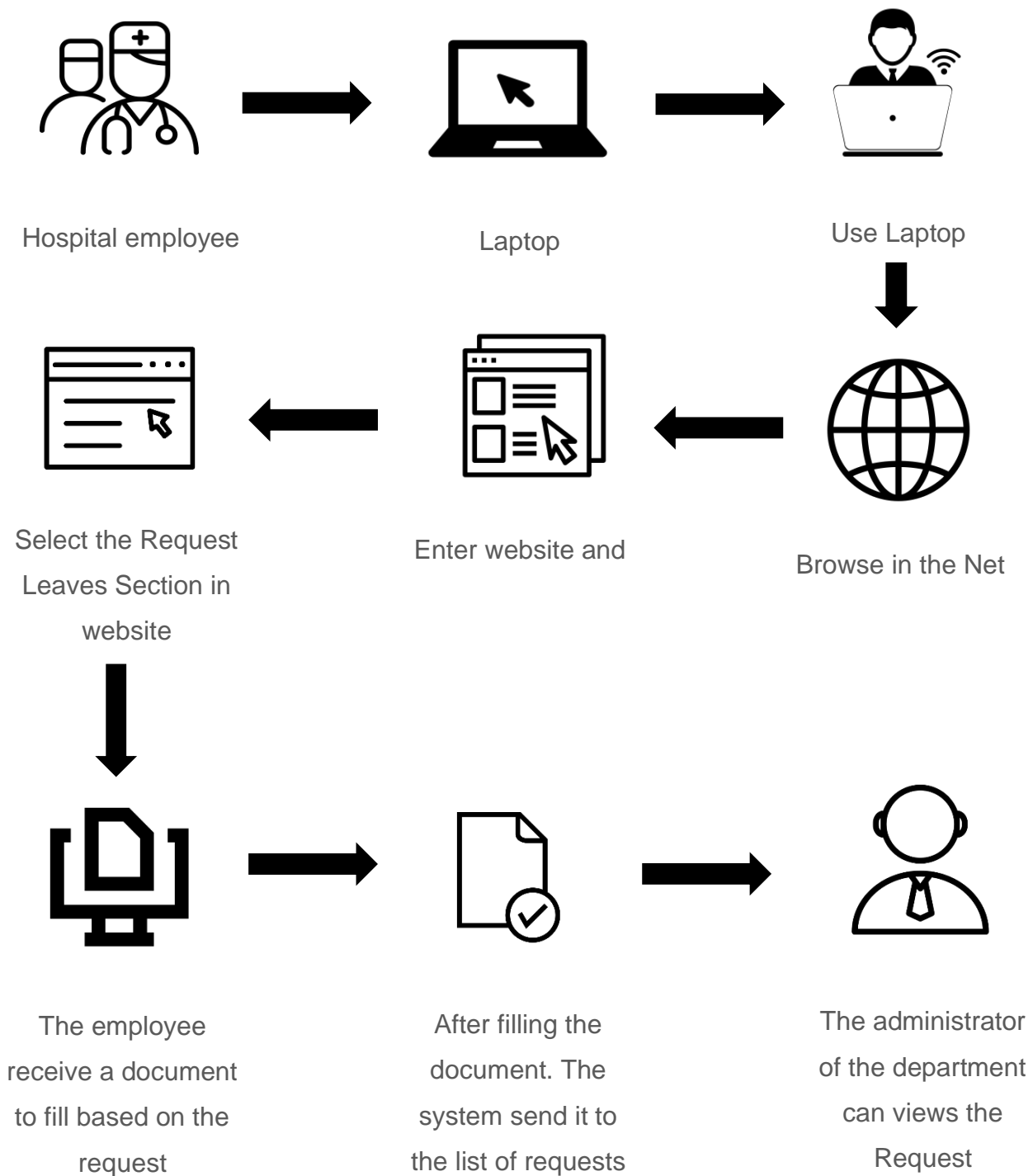
As for the administrator point of view:

- Administrator of department login to the website.
- On the website, there is a section for a list of requests for each employee in the department. Including name, id, and the request type.
- The administrator can click on employee requests and read the document request easily.
- When the administrator accepts the request.
- The system calculates and update the remaining request left.
- The system sends to the employee a request notification in email and on the website in the request status section.

The advantages of our solution can solve the problems in three ways:

- The website is user-friendly, it is easy to use and does not require a specific time and place. The employees can submit a request from any place.
- Employees from different departments can now apply for a leave request online, without filling a form manually.
- It solved calculating unused vacation leaves for each employee in a different department.

SOLUTION DIAGRAM

Employees view

Hospital employee

Laptop

Use Laptop

Select the Request Leaves Section in website

Enter website and

Browse in the Net

The employee receive a document to fill based on the request

After filling the document. The system send it to the list of requests

The administrator of the department can views the Request

Department managers' view

The administrators of the different department have access to the website

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The administrator browse the web
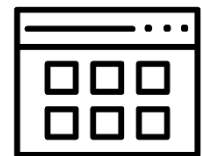
→

The web request login information

The administrator view the document and decide to either accept or decline

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The request leaves page contain a list of employees request

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The page contains a section of Request Leaves

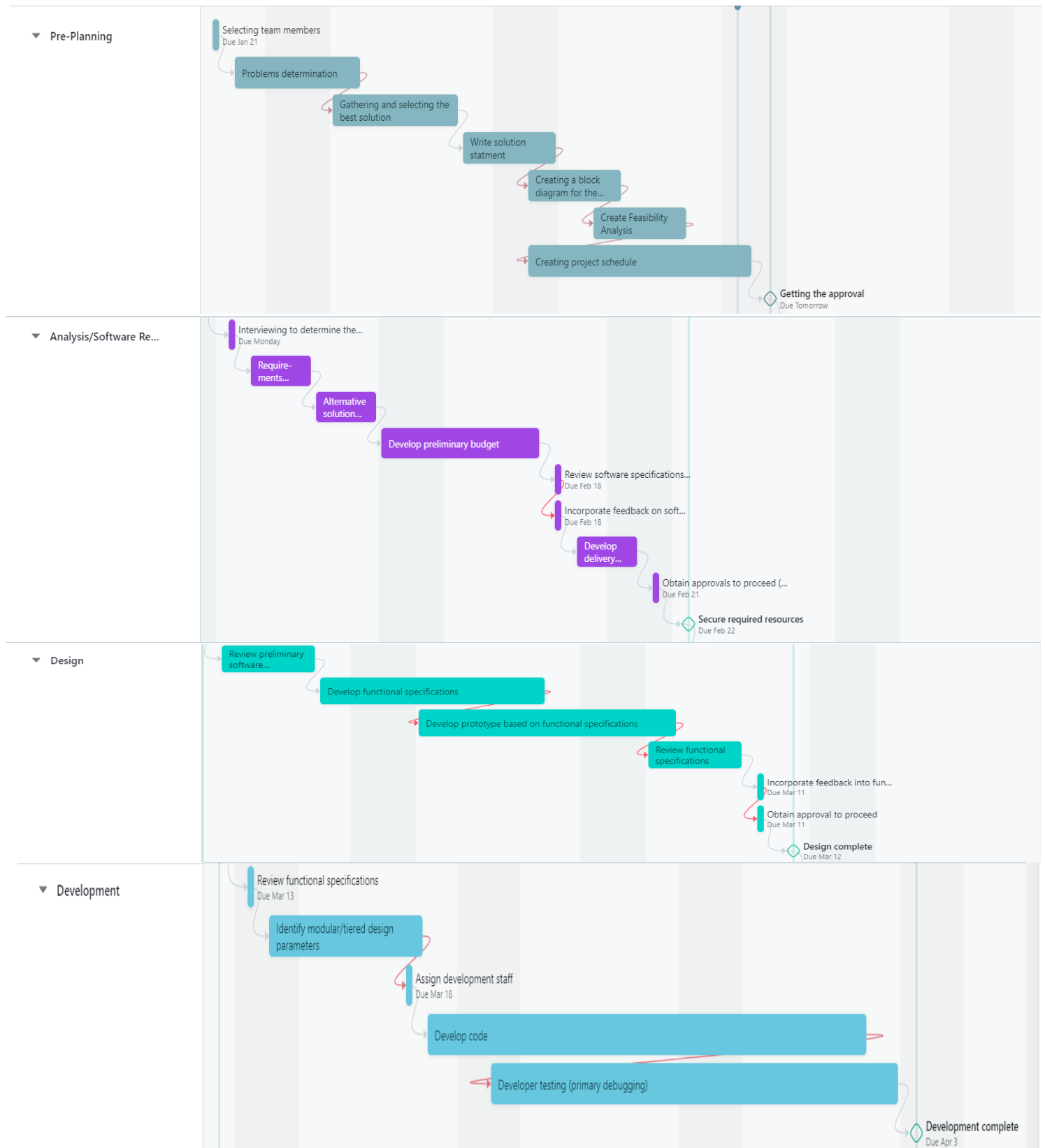If the admin accept the request, the system starts to calculate the remaining days

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The system then sends an email to the employee informing of the request status

FEASIBILITY ANALYSIS

Serial No.	Feasibility Concern	Status	Reason
1.	Economical	Satisfied	To solve the problems they face, we will create a **website** that helps employees send a vacation request to managers and calculate the remaining balance for vacations according to the category to which the employee belongs and the type of leave they want. It will not cost us a lot of money, but it needs some effort in gathering all this information and data.
2.	Technical	Slightly Satisfied	Our team consists of three members so it will be a little difficult for the database to be properly organized, as it will include all hospital departments with their employees and department heads. To do this web site we will have to make more effort and maybe we will need more time.
3.	Organizational	Satisfied	Paperwork is rarely used to meet the needs at work these days, Most companies have systems like this so it would be helpful for the hospital to create their own vacation system. This will save a lot of time and effort for the employees and heads of departments as well, and it will achieve success by being more organized and ease.

PROJECT SCHEDULE

Pre-Planning

Selecting team members
Due Jan 21

Problems determination

Gathering and selecting the best solution

Write solution statment

Creating a block diagram for the...

Create Feasibility Analysis

Creating project schedule

Getting the approval
Due Tomorrow

Analysis/Software Re...

Interviewing to determine the...
Due Monday

Require-ments...

Alternative solution...

Develop preliminary budget

Review software specifications...
Due Feb 18

Incorporate feedback on soft...
Due Feb 18

Develop delivery...

Obtain approvals to proceed (...
Due Feb 21

Secure required resources
Due Feb 22

Design

Review preliminary software...

Develop functional specifications

Develop prototype based on functional specifications

Review functional specifications

Incorporate feedback into fun...
Due Mar 11

Obtain approval to proceed
Due Mar 11

Design complete
Due Mar 12

Development

Review functional specifications
Due Mar 13

Identify modular/tiered design parameters

Assign development staff
Due Mar 18

Develop code

Developer testing (primary debugging)

Development complete
Due Apr 3

PROJECT SCHEDULE DETAILS