



MAHARASHTRA STATE BOARD OF TECHNICAL EDUCATION

GOVERNMENT POLYTECHNIC, AWASARI (KH)

TALAMBEGAON, DIST-PUNE-412405

ACADEMIC YEAR : 2021-2022

COURSE NAME : Software Engineering

COURSE CODE : 22413

BRANCH : INFORMATION TECHNOLOGY(SY)

**TOPIC NAME : “SRS Format & Use Case Diagram of
Hospital Management System”.**

DETAILS OF TEAM MEMBERS

Sr. No	Roll No	Name Of the Student	Enrollment No
1.	21IF201	Bangar Sarthak Nilesh	2010510345
2.	21IF202	Barhate Vaishnavi Bhagavat	2010510346
3.	21IF203	Bharti Aditya Dronacharya	2010510349
4.	21IF204	Bhosure Priya Shivaji	2010510350
5.	21IF205	Chipade Aditya Sandip	2010510351
6.	21IF206	Chipade Siddhi Satish	2010510352

GUIDANCE BY

Ms.P.C. FAFAT

GROUP LEADER

CHIPADE SIDDHI

Part A-Micro Project Proposal

Title of Micro-Project:

“SRS Format & Use Case Diagram of Hospital Management System”.

Aim: -

“SRS Format & Use Case Diagram of Hospital Management System”.

Benefits: -

- Hospital management simplified
- Complete Patient information management.
- Disciplinary log maintenance
- Setting up fees as per the facilities in the hospital.
- Final account details.
- Daily update to patient on hospital attendance.

Course Outcomes (Cos):

- a) Prepare requirement specifications.
- b) Use software modelling to create data designs.
- c) Apply project management and quality assurance principles in software development.

Proposed Methodology:

1. Create a group of six students as one group under the guidance of subject teacher for micro-Project of SEN.
2. Select a Topic Hospital Management System, For micro project.
3. Collect the information related to topic using source such as the Internet, Google, and Book etc.
4. After we type required part A. And done proper page setup and submitted to subject teacher.
5. After finishing part A. We start creating part B .in part B We Using Information we done all program and information in proper arrangement.
7. We select proper margin font, lay out, 4ASize, Border for micro-project.
8. At last, we got the print outs of the micro-project and submitted to subject teacher.

Action Plan:

Sr. No	Details of activity	Planned starts date	Planned finish date	Name of responsible Team members
1	Formation of project group			Banger Sarthak Barhate Vaishnavi Bharti Aditya Bhosure Priya Chipade Aditya Chipade Siddhi
2	Allocation of project title by subject teacher			
3	Conduct the information search about the project for requirement analysis of the project			
4	Procurement/Arrangement of components and material required for project			
5	Actual projector assembling work			
6	Testing calibration and prototype development			
7	Report preparation			
8	Submission of project			

Resources Required: -

Sr. No	Name Of Resource/Material	Specifications	Qty	Remarks
1	Desktop pc	16 GB RAM, 500GB HD	1	
2	Window 11	64 Bits	1	

Guided By

(Ms. P C. Fafat)

HOD

(Dr.D.N.Rewadkar)

Principal

(Dr.D.R.Nandanwar)

DEPARTMENT OF INFORMATION TECHNOLOGY
GOVERNMENT POLYTECHNIC AWASARI (KHURD)



SEMESTER-IV (2021-22)

CERTIFICATE

This is to certify the following students of semester fourth of Diploma in information Technology of Institute: Government polytechnic, Awasari (kh) (Code: 1051) has completed the micro project satisfactorily in subject-Software Engineering for the academic year 20212022 as per prescribed in the curriculum.

Name of Team Members.

Sr. No	Roll No	Name Of the Student	Enrollment No
1.	21IF201	Bangar Sarthak Nilesh	2010510345
2.	21IF202	Barhate Vaishnavi Bhagavat	2010510346
3.	21IF203	Bharti Aditya Dronacharya	2010510349
4.	21IF204	Bhosure Priya Shivaji	2010510350
5.	21IF205	Chipade Aditya Sandip	2010510351
6.	21IF206	Chipade Siddhi Satish	2010510352

Date: -

(Ms. P. C. Fafat)

Guided By

(Dr.D.N.Rewadkar)

HOD

(Dr.D.R.Nandanwar)

Principal

PART B – MICRO PROJECT REPORT

“SRS Format & Use Case Diagram of HOSPITAL MANAGEMENT SYSTEM”

1.0 Rationale:

The main importance of the Software Engineering project on hospital management system is to manage the details of hospital, patients, medical history, details of their previous visits, appointments, doctors, nurses. It manages all the information about hospital, Payment, bills.

The project is totally built at administrative end and thus only the administrator is guaranteed the access. The purpose of the project is to build an application program to reduce the manual work for managing the hospital, Patients, Payments, doctors and nurses. It tracks all the details about the beds, allotters, patients' rooms.

2.0 Aim: -

1. Create SRS format on Hospital Management System
2. Draw use case diagram for Hospital Management System

Benefits of the Micro-Project:

- Hospital management simplified
- Rooms and bed allocation made easy for patient.
- Complete Patient information management.
- Disciplinary log maintenance
- Setting up fees as per the facilities in the hospital.
- Hospital fee integrated with fees management module for automated fee calculation.
- Final account details.
- Daily update to patient on hospital attendance.

3.0 Course Outcomes (COs):

CO1: Select suitable software process model for software development.

CO2: Prepare Software requirement specification.

CO3: Use software modelling to create data designs.

CO4: Apply project management and quality assurance principles in software development.

4.0 Literature Review: -

Book Name	Author Name	Publication
Software Engineering: Practitioners approach	Pressman Roger S.	McGraw Hill Higher Education, New Delhi.
Software Engineering Concepts	Fairly, Richard	McGraw Hill Education, New Delhi
Software Engineering: Principles and practices	Jam Deepak	Oxford University Press, New Delhi.

5.0 Actual Methodology Followed: -

1. Create a group of six students as one group under the guidance of subject teacher for micro-Project of SEN.
2. Select a Topic Hospital Management System, For micro project.
3. Collect the information related to topic using source such as the Internet, Google, and Book etc.
4. After we type required part A. And done proper page setup and submitted to subject teacher.
5. After finishing part A. We start creating part B .in part B We Using Information we done all program and information in proper arrangement.
7. We select proper margin font, lay out, 4ASize, Border for micro-project.
8. At last, we got the print outs of the micro-project and submitted to subject teacher.

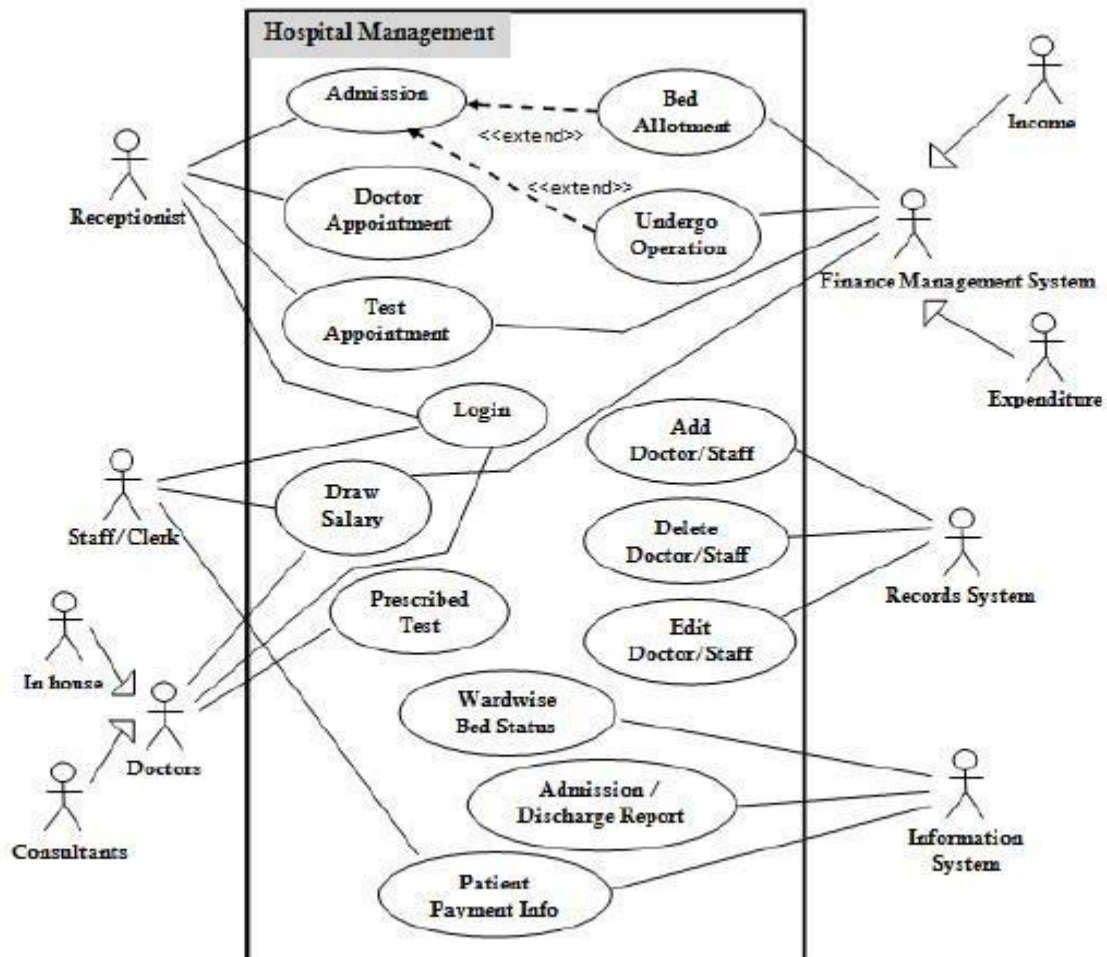
0.6 Actual Resources Used: -

Sr. No	Name Of Resource/Material	Specifications	Qty	Remarks
1	Desktop pc	16 GB RAM, 500GB HD	1	
2	Window 11	64 Bits	1	

7.0 Outputs of the Micro-Projects:

This microproject help to improves the process of hospitalization

Use case diagram for Hospital Management System



8.0 Skill Developed / Learning outcome of this Micro-Project:

1. Presentation skill
2. Communication skill
3. Documentation skill
4. Team interaction

9.0 Applications of this Micro-Project:

1. Hospital management system is used in hospitals to reduce the manual work in hospital.
2. Hospital management system software is used to store the patient details and the billing of the patients.
3. To computerize all details regarding patient details and hospital details.

Introduction:

The project Hospital Management system includes registration of patients, storing their details into the system, and also computerized billing in the pharmacy, and labs. The software has the facility to give a unique id for every patient and stores the details of every patient and the staff automatically. It includes a search facility to know the current status of each room. User can search availability of a doctor and the details of a patient using the id.

The Hospital Management System can be entered using a username and password. It is accessible either by an administrator or receptionist. The data can be retrieved easily. The interface is very user-friendly. The data are well protected for personal use and makes the data processing very fast.

Software Requirement Specification (SRS):

1) Introduction:

Scope:

It can be used in any Hospital, Clinic, Dispensary or Pathology labs for maintaining patient details and their test results.

Product feature:

Registration:

When patient is admitted, front desk staff checks to see if the patient is already registered with the hospital. If he/her personal health number is entered into the computer otherwise a new personal health number is given to the patient. The patient information such as DOB, address, and telephone number is also entered into the computer system. **Patient**

checkout:

If a patient checks out, the administrative staff shall delete his PHN from the system and the evacuated bed is include in available-bed list.

Generation:

The system generates reports on the following information: list of detailed information regarding the patient whose admitted in the hospital.

User characteristics:

Front desk staff:

All have general reception and secretarial duties. Every staff has some basic computer training. They are responsible for patient check in or notification of appropriate people.

Administrator:

All have post-secondary education relating to general business administration practices. Every administrator has basic computer training. They are responsible for all of the scheduling on updating day/night employee shifts administrator in the word are responsible for assigning doctors and nurse to patient.

Nurses:

All nurse has post-secondary education in nursing. Some nurses are computer literate consulting nurses to whom patient given short description of their condition are also responsible for assigning patient to appropriate words if the beds are available, otherwise putting patient on the waiting list. Nurses in word will use the system to check their patient list.

Doctors:

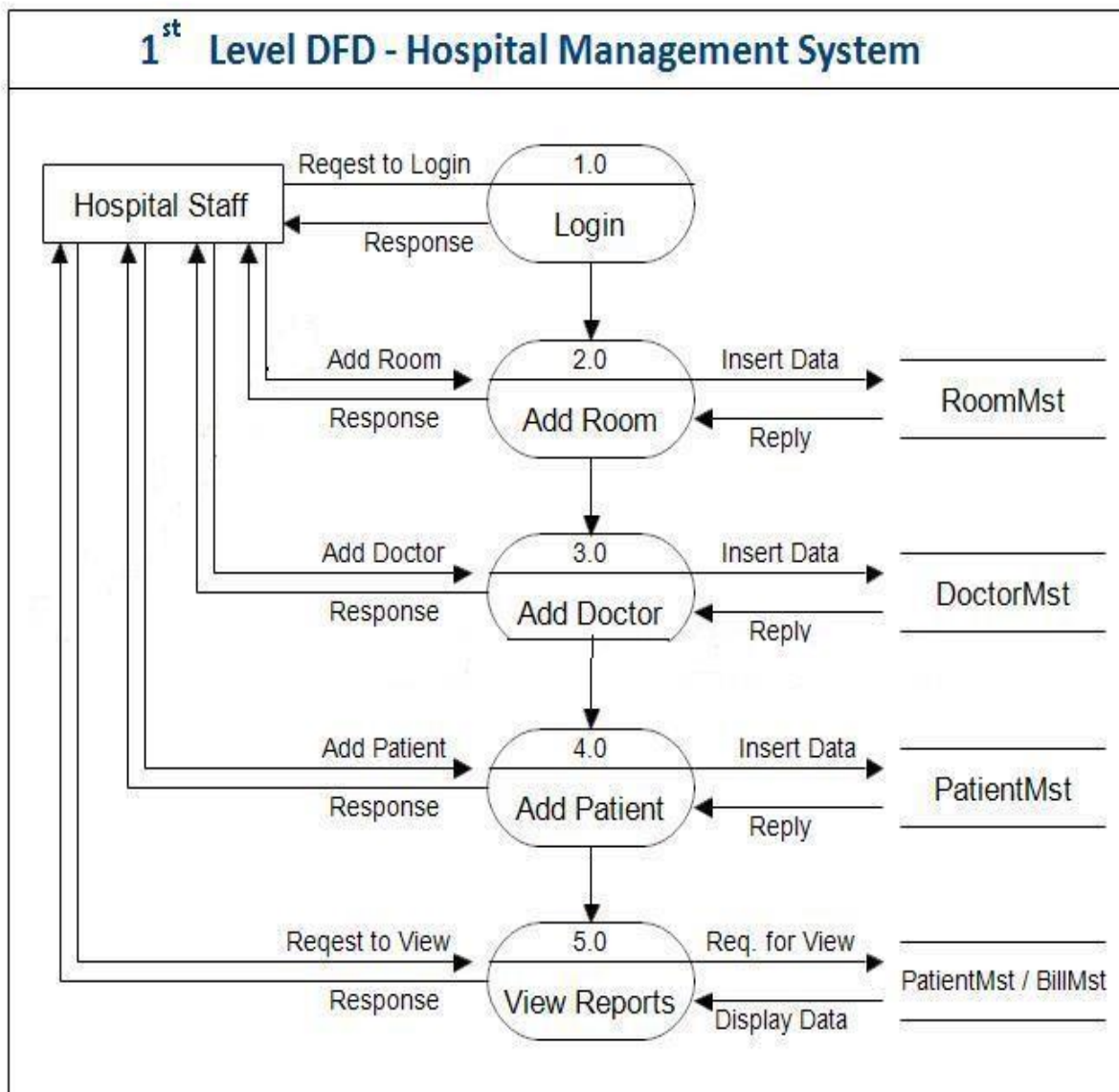
All doctors have medical degree. Some have further specialized training and are computer literate. Doctors will use the system to check their patient list.

Constraints:

The system must be delivered by deadline. The system must be user friendly.

Assumption and dependencies:

It is assumed that compatible computers will be available before the system is installed and tested. It is assumed that the hospital will have enough trained staff to take care of the system.



2) Functional requirements:

Registration:

Add patient:

The system allows front desk staff to add new patient to the system.

Assign ID:

The system shall allow front desk staff to give each patient a ID and add it to the patient records. This id shall use by the patient throughout his/her stay in hospital.

Consultation:

Assign ward:

The consulting nurse shall use system to an appropriate ward.

Assign to waiting list:

The consulting nurse shall use system to assign patient to a waiting list if no bed list is available.

Medical matter management:

Assign doctor:

The administrative staff in the ward shall use system to assign a doctor to a given patient.

Assign nurse:

The administrative staff in the ward shall use system to assign a nurse to a given patient.

Inform doctors:

The system shall inform doctors for new patient.

Inform nurse:

The system shall inform nurse for new patient.

Emergency case:

In an emergency case, the administrative staff shall use system to assign an emergency room, doctors and nurses to the patient immediately.

Inform patient:

The system shall automatically inform the patient who are on the bed waiting list of available beds whenever they become available.

Check out:

Delete patient ID:

The administrative staff in the ward shall be allowed to delete the ID of the patient from the system when the patient check out.

Add to beds available list:

The administrative staff in the ward shall be allowed to put the beds just evacuated in beds available list.

3) Quality attributes:

Patient identification:

The system requires the patient to identify himself/herself using PHN.

Logon id:

Any user whose uses the system shall have a logon ID and password.

Front desk staff right:

Front desk staff shall be able to view all information in system, add new patient to system but not shall able to modify any information in it.

Administrator Rights:

Administrator shall be able to view and modify all information in system.

Nurse Rights:

Nurse shall only be able to view all information in system.

Doctors Rights:

Doctors shall only be able to view all information in system.

4) Behavioural requirements:

Such requirement usually describes about the input which are expected with respect to system. So generally, it gives the information about inputs and output relationships. Behavioural requirements of the system are described using use case view.

5) Information requirements:

Data model:

The entity data model (EDM) given a glimpse of the structure data in the database without regards to the form in which it is stored.

Data dictionary: Doctor details:

Name	Type	Size	Description
ID	Integer	50	Id of doctor
Name	Char	150	Name of doctor
Address	Char	50	Address of doctor
Phone no	Integer	10	Phone of doctor
Gender	Char	30	Gender of doctor

Patient details:

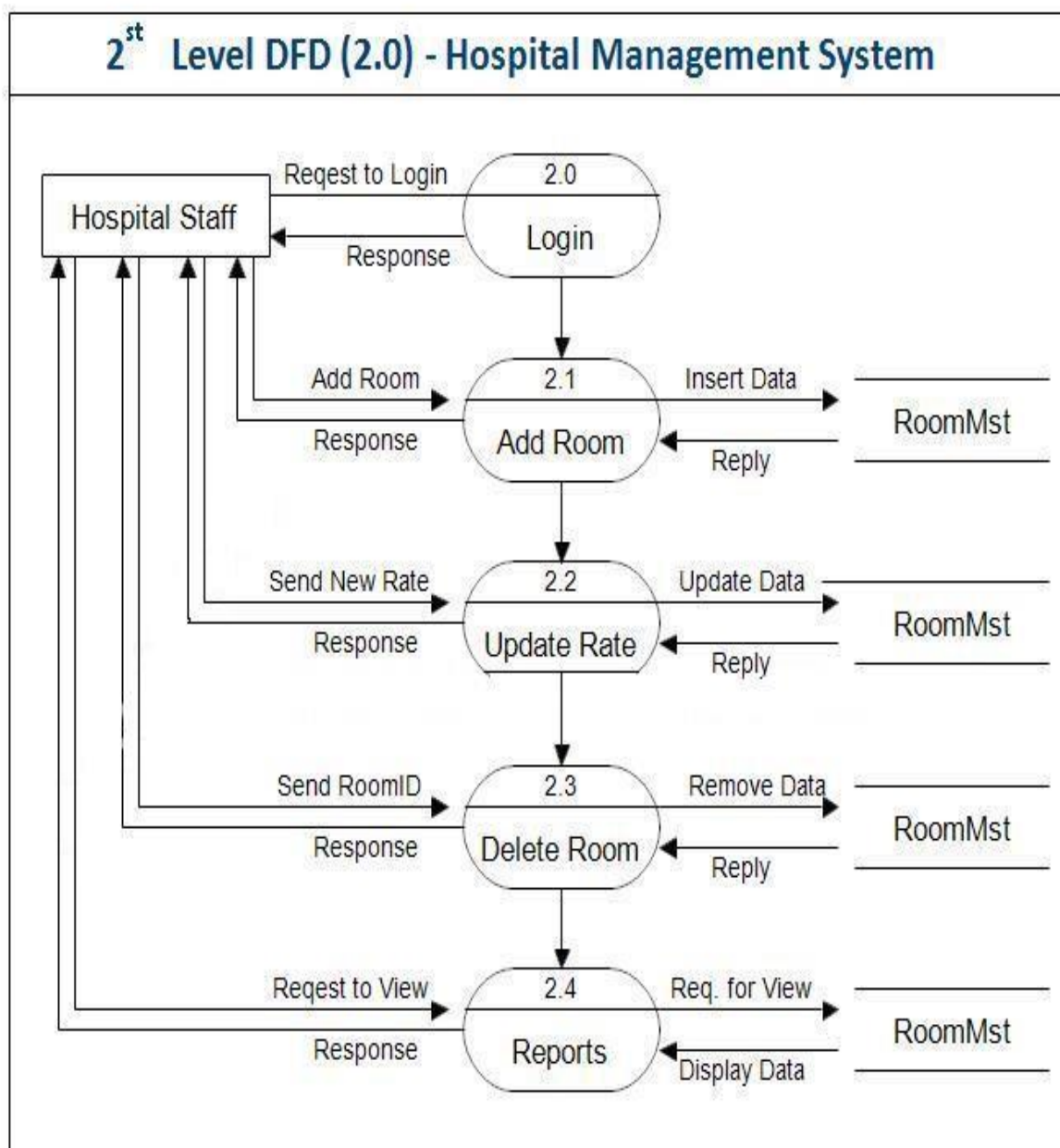
Name	Type	Size	Description
Phone no	Integer	20	Id of patient
Name	Char	60	Name of patient
Age	Integer	20	Age of patient
Gender	Char	30	Gender of patient
Date	Integer	30	Date of admitted

Bill details:

Name	Type	size	Description
Bill no	Integer	20	No of bill
P id	Integer	50	Id of patient
D fees	Char	50	Doctor check-up fees
Pathology fees	Char	50	Laboratory report charges

Communication interface:

Windows



Doc/Doc

