SLIIT

Discover Your Future

Lecture 01

INTRODUCTION TO ITP

IT2080 IT Project

B. Sc. Special Honors in Information Technology

Year 2 – Semester 2

Agenda

1. Introduction to ITP
2. Project Initiation
3. Guidelines to Succeed the Project
4. Sample Case Studies

1. Introduction to ITP

- **Course Code**: IT2080
- **Course Name**: Information Technology Project (ITP)
- **Credit Points**: 4
- **Duration**: One Semester
- **Enrollment Key** : it2080

ITP – Academic staff

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1. Introduction to ITP
Pre-requisites

- Knowledge acquired through one and half years of completing the Associate Diploma Course in Information Technology

1. Introduction to ITP
Mode of Delivery

Formal

- 2 hr Lecture session, 1 hr Tutorial, 2 hr Evaluation/Lab session per week. They are used for
  - Discussions with the lecturer/ Supervisor
  - Activities
  - Presentations
  - Demonstrations
  - Viva

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1. Introduction to ITP
Mode of Delivery

- Lectures are activity based.
- Participation for lectures is compulsory
- Marks are allocated for activity participation.

Evaluation (2 hours)

- Evaluation sessions/Labs will be conducted for project evaluations, group activities and discussions.
- Students are encouraged to make use of the time for group meetings, client/supervisor meetings, preparation of documents and project development

1. Introduction to ITP
Mode of Delivery –Informal/formal

- Group discussions among the group members (e.g. standup meetings, sprint planning)
- Members participating in project planning and development
- Meeting the client (by appointment)
- Progress related discussions with Lecturer/staff member

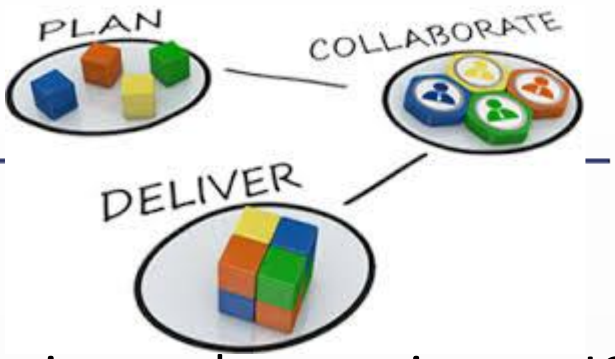
1. Introduction to ITP
Self-Study

- You should self-study following and use them in your project.
    - **A project management tool**
    - **Version Control System (VCS) - Git/GitHub**
    - **Technology stack to develop the product**

1. Introduction to ITP Resources

- **Resources and Materials**
  - Unit resources and material will be available in courseweb.
  - Refer extra resources to gain knowledge and skills
  - Attend workshops and sessions organized by SLIIT
- **Notices**
  - All common notices will be published on the courseweb unit page
  - Check the unit page regularly

1. Introduction to ITP
Objectives of ITP



What is ITP?

- This unit involves students in developing and managing an ICT project based on a requirement
- Involves identifying the project goals, defining objectives, designing, project planning and implementing the project, by showing various stages of completion.
- Opportunity to familiarize with relevant tools to design and develop
- Vital part of your academic curriculum that supports your academic as well as professional development.
- Preparation of project documents at different stages of completion
- Presenting the progress of product development

LANGUAGES
READING
CREATIVE
EDUCATION
WRITING
DESIGN
CAREER

Objectives of ITP

- **Address Real-World Challenges**
  - Identify and tackle real-world problems that needs IT solutions
- **Build Essential Skills**
  - Problem solving
  - Client interaction and project management skills.
  - Enhance teamwork and collaboration capabilities.
- **Demonstrate Expertise**
  - Showcase your ICT knowledge and practical skills.
  - Benchmark your ability to solve industry-relevant issu

Objectives of ITP

- **Stand out as a Graduate**
  - Establish a strong foundation for career success.
  - Enhance employability with proven skills and experience.
- **Gain experience with Tools and Processes**
  - Use industry-relevant tools such as version control systems, project management software, and integrated development environments (IDEs).
  - Apply agile, waterfall, or hybrid methodologies in project development.
  - Develop technical documentation to meet professional standards
- **Enhance Graduate Employability**

1. Introduction to ITP Semester plan

Refer to the

2025 S2 IT2080 ITP - Delivery Schedule

in courseweb

1. Introduction to ITP Assessments

- Assignment 1: Project Proposal [20%]
  - Project Proposal (document) [10%]
  - Presentation + Q&A [10%]
- Assignment 2: Progress [35%]
  - Activities [15%]
  - 80% completed prototype demonstration Viva & code evaluation[20%]
- Assignment 3: Final product [45%]
  - Report, Poster [15%]
  - Product demonstration + viva [30%]

1. Introduction to ITP Evaluation

- As specified in the assignments
  - Read and follow the instructions
  - Refer the marking schemes (Assignments 1-3)
  - 80% of the product(integrated) by 8th week
  - Final product should be integrated and tested, by 12/13th week

1. Introduction to ITP Evaluation

- In every assessment the contribution of each member is assessed
  - **A “common mark” is not given for the entire project**
- To pass the module, every member’s involvement in all project stages is necessary
  - Need to use version control
  - Demonstrate the progress through activities, presentations, demonstrations and documents

1. Introduction to ITP Evaluation

- During evaluations, all members must be present
- Absent members will **not get** marks for the evaluations
- Instructions given in the assignments needs to be read carefully by all members
- Evaluations will be held **during the lecture, tutorial or lab sessions** (schedule will be published)
- All the members of the group must attend the same lecture and the tutorial session
- Presentations should be done **only** in English medium

1. Introduction to ITP
Document Submissions

- Project Proposal Document – during proposal presentation
- Progress Document/s - During progress Presentation
- Group activity documents – at the end of the session
- Final Report – at the end of the final presentation.
- **Group documents can be submitted by one member** of the team to the link.
    - The document name should contain the correct groupID
    - Read assignments for more details

2. Project Initiation

2. Project Initiation
Categories of Projects

☐ **Industry Based Projects**

- Collaborate with a real client to address specific business challenges.
  - Developing a custom inventory management system for a local retailer.
  - Building a customer relationship management (CRM) tool for a startup.

☐ **Innovative web-based applications**

☐ **Projects aligned to competitions**

  - Example : Microsoft Imagine Cup

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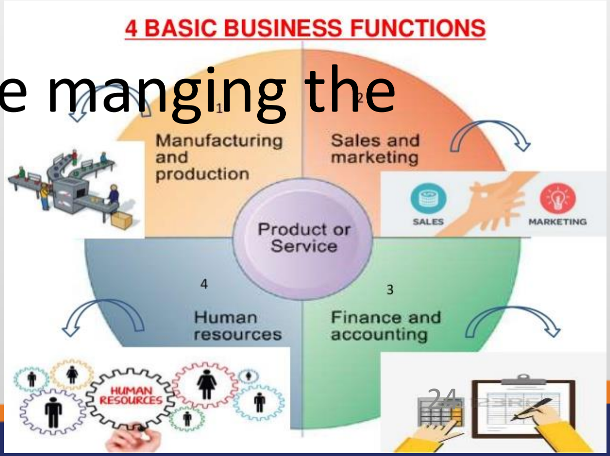
2. Project Initiation
Type of Project

- Web-based Application
  - Not a Website
  - May use browser-based apps and/or mobile apps at client's end

- Desktop Application – Not recommended

2. Project Initiation
Project Scope

- Clearly understand the requirements of the project
- The scope must not be too small or too large for a 12 week duration.
- The project must have 5 significant business functions
- Investigate the solutions that are currently available (literature review)
- Design and develop the project while manging the team


4 BASIC BUSINESS FUNCTIONS
1
Manufacturing and production
2
Sales and marketing
SALES
MARKETING
Product or Service
4
Human resources
3
Finance and accounting
HUMAN RESOURCES

Scope for Individual Member

- Every member should be aware of business process
- All the members should have a good overall understanding about the entire project in depth and the functions assigned.
- Develop meaningful functionalities (user stories) by every individual
- A working product is essential (integrated)
- Each member should be responsible to generate at least one meaningful report for the respective function.
- Other than individual function development, all the members should involve in document preparation.

Contribution by the Team Members

- **Handle your function from “end-to-end”.**
  - All members are responsible for documenting, designing, coding, testing
  - Maintain a repository, Handle version control (use GitHub)
  - All members are responsible for contributing to the team throughout

2. Project Initiation
Project Ideas:

Smart Inventory Management System for a small business

- Web-based inventory system with stock tracking, low-stock alerts, and barcode scanning.

Appointment Scheduling System for Clinics or Salons

- Users can book appointments, receive reminders, and manage rescheduling through a portal.

Event Management & RSVP System

- Platform to send invites, manage RSVPs, plan seating, and track budget.

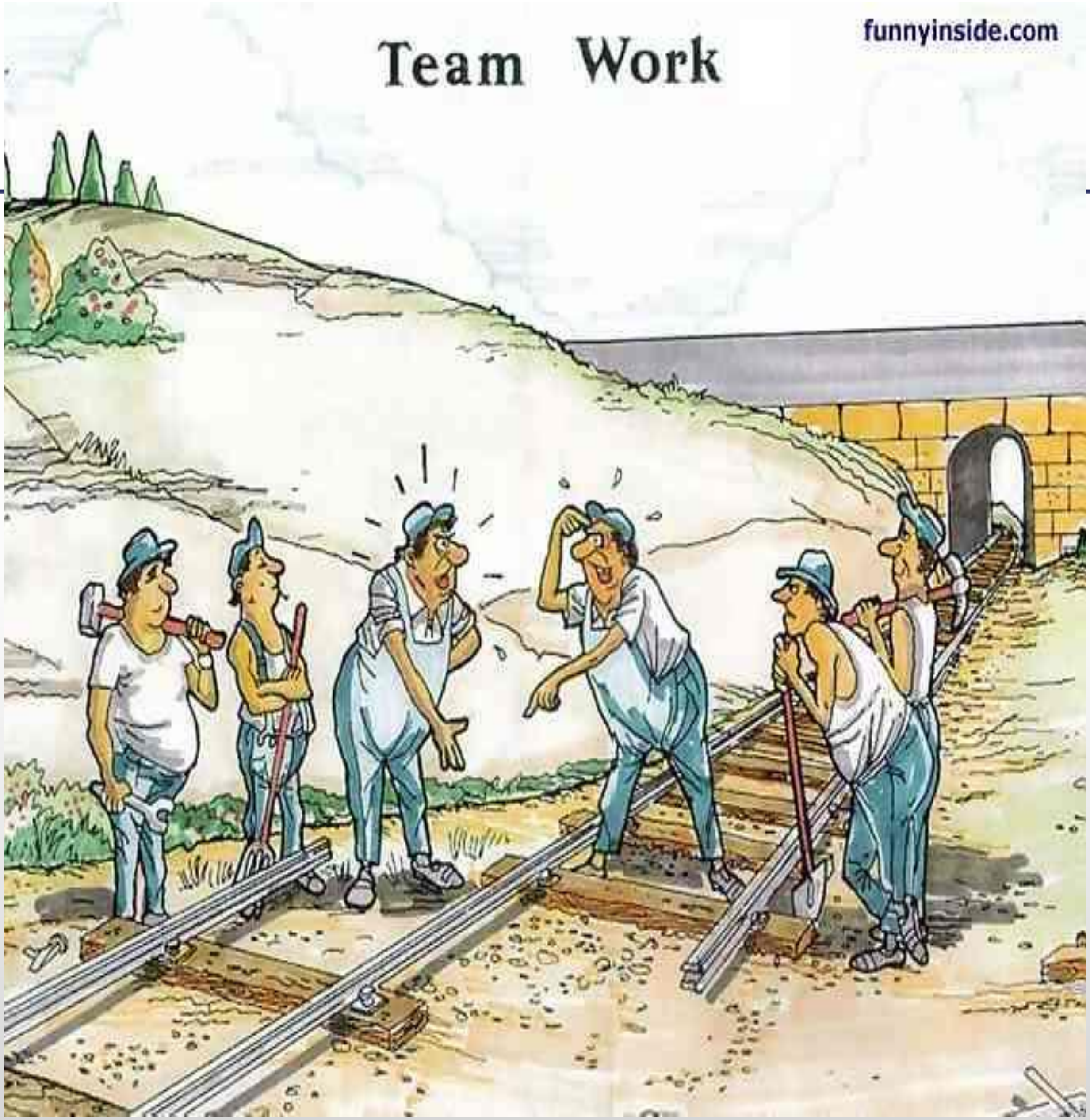
E-Ticketing & Queue Management System

- System to generate tokens, monitor queues, and alert users when it's their turn.

3. Guidelines to Succeed the Project

Common issues of project groups

- Lack of understanding of the business' needs
- Not clearly aligned on top priorities for the project.
    - Decomposing these priorities into "must-haves," "should-haves" and "could-haves"
- Students begin programming before they understand the problem
- Not working continuously in the project and not given effort to the quality of outcome
- Lack of teamwork and communication


Team Work
funnyinside.com

Points to note:

- Identify the important requirements
- Follow a suitable software development methodology
- Introduce software quality from the very beginning of the project
- Use good engineering practices (coding standards, CICD)
- Use appropriate tools - estimation, reviews, requirements specification, designing, testing etc.
- Work as a team and ensure that you monitor your progress

Academic Integrity Policy

- Are you aware that following are not accepted in SLIIT.
  - Plagiarism - using work and ideas of other individuals intentionally or unintentionally
  - Collusion - preparing individual assignments together and submitting similar work for assessment.
  - Cheating - obtaining or giving assistance during the course of an examination or assessment without approval
  - Falsification – providing fabricated information or making use of such materials
- Committing above offenses come with serious consequences
- See General support section of Courseweb for full information.

Use of Generative AI tools

The use of generative AI tools is permitted in this course only for the following activities:

- Brainstorming and refining your ideas;
- Finding information on your topic;
- Drafting an outline to organize your thoughts
- Checking grammar and style.

Use of Generative AI tools

The use of generative AI tools is **not permitted** in this course for the following activities:

- Impersonating you in classroom contexts, such as by using the tool to compose work assigned to you or content that you are responsible for.
- Completing group work that your group has assigned to you, unless it is mutually agreed upon that you may utilize the tool.
- Writing a draft of a writing assignment/activity/presentation.
- Writing entire sentences, paragraphs or papers to complete assessments.

Use of Generative AI tools

- You are responsible for the information you submit based on an AI query (for instance, that it does not violate intellectual property laws, or contain misinformation or unethical content).
- Your use of AI tools must be properly documented and cited
    - Provide a description of the AI tool used, how the information was generated, including the prompts you used, and the date accessed. You could add this acknowledgement as a footnote or at the end of your reference list, but you should check with the lecturer for guidance.
    - e.g.
      I acknowledge the use of Copilot [https://copilot.cloud.microsoft/] to generate ideas and material for background research in the drafting of this assignment. The following prompts were entered into Copilot on 1 Dec 2024: "Explain whether ……. "Please reference your answer".

Exercise 1

Activity 1(in class)

5. Sample Case Studies

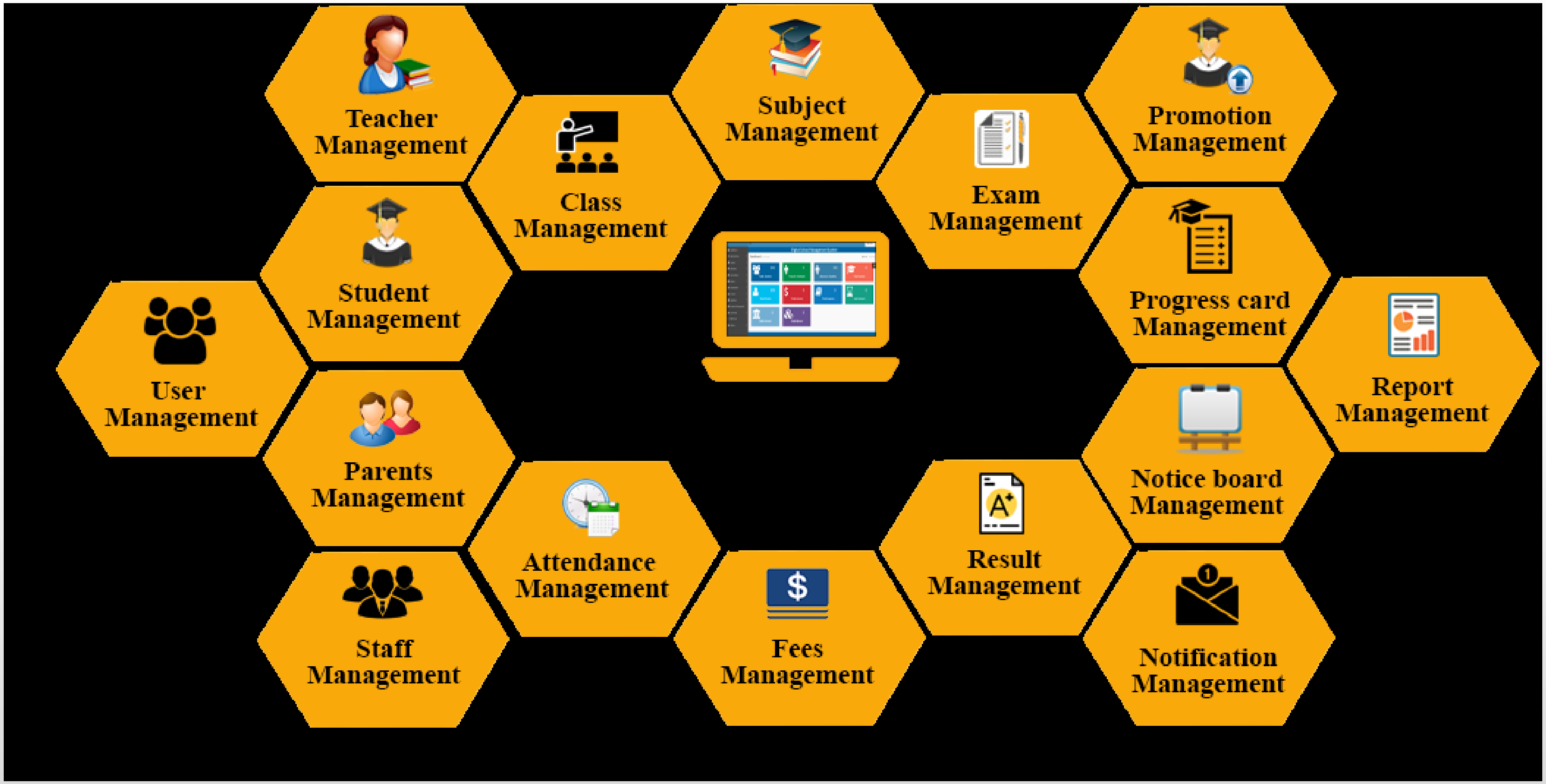
5. Sample Case studies
School Management system

- Client: Education Institute/School in your area
- Goal : To automate the school manual work

- Identify the main functions of the school
- Identify the people who are involved with the system and why they use the system

5. Sample Case studies
School Management system

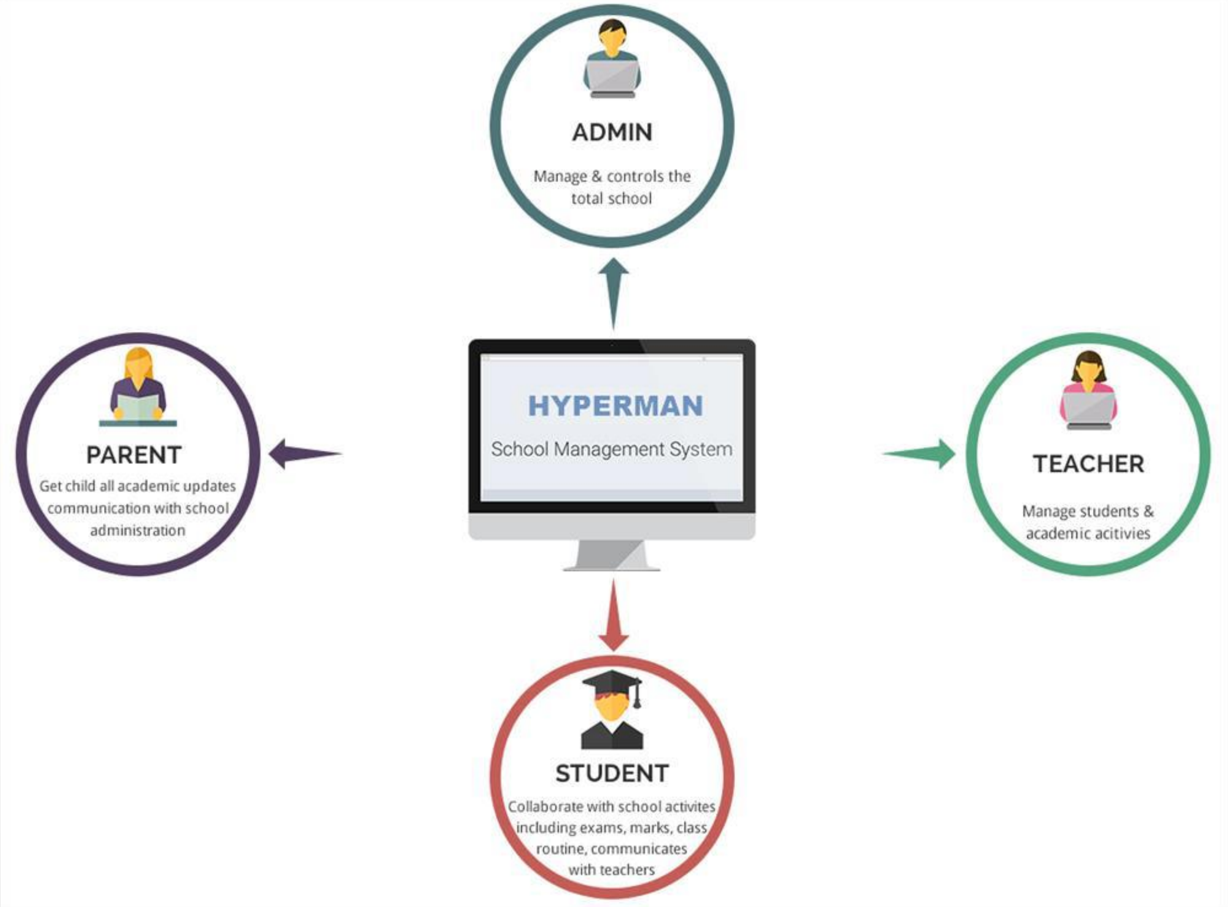
School functions can be categorized according to the client requirements



- Teacher Management
- Class Management
- Subject Management
- Exam Management
- Promotion Management
- Student Management
- Progress card Management
- User Management
- Report Management
- Parents Management
- Notice board Management
- Attendance Management
- Result Management
- Staff Management
- Fees Management
- Notification Management

5. Sample Case studies
School Management system

Identify who will going to use the system and what are the benefits from the system.



HYPERMAN
School Management System

ADMIN
Manage & controls the total school

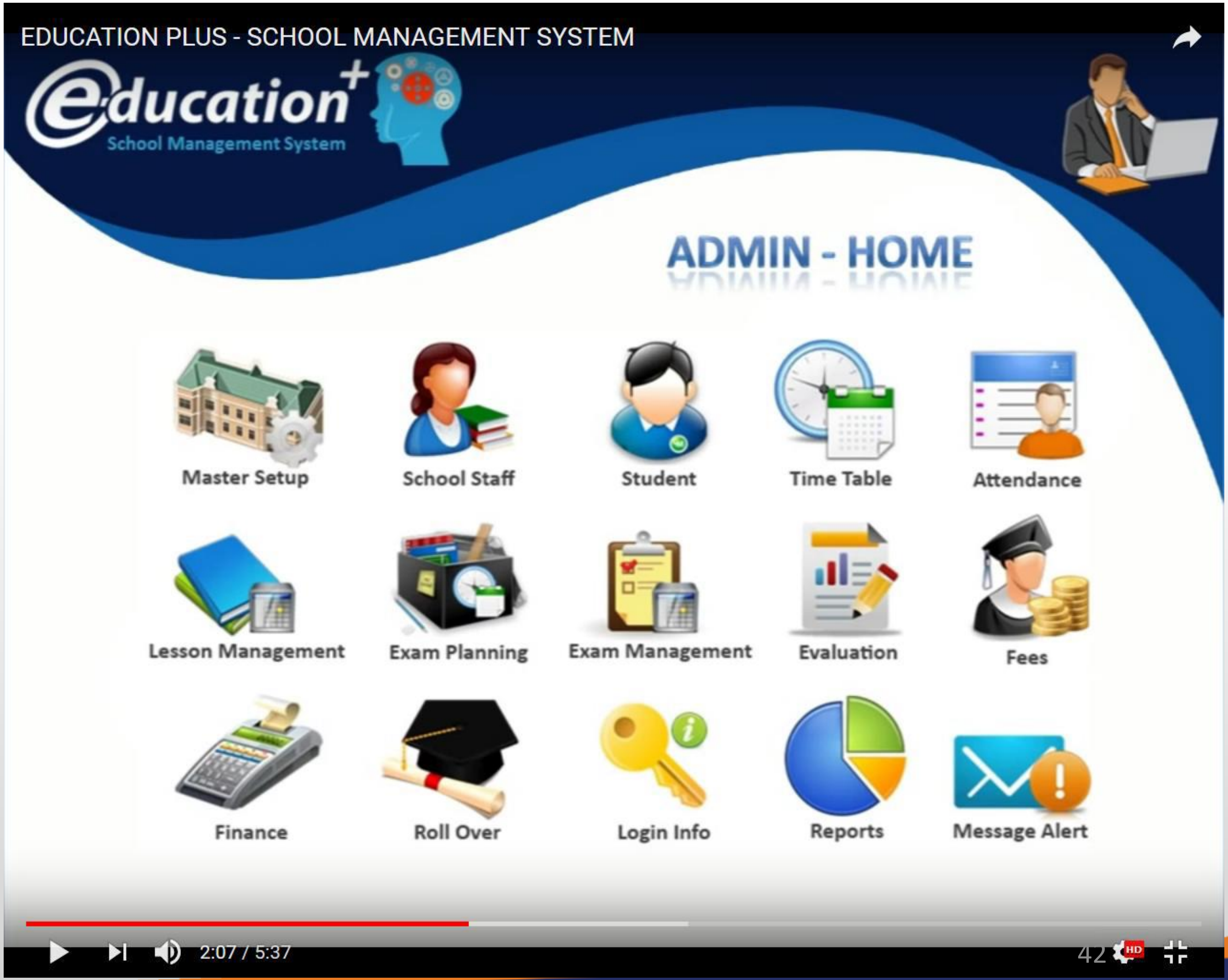
PARENT
Get child all academic updates communication with school administration

TEACHER
Manage students & academic acitivies

STUDENT
Collaborate with school activites including exams, marks, class routine, communicates with teachers

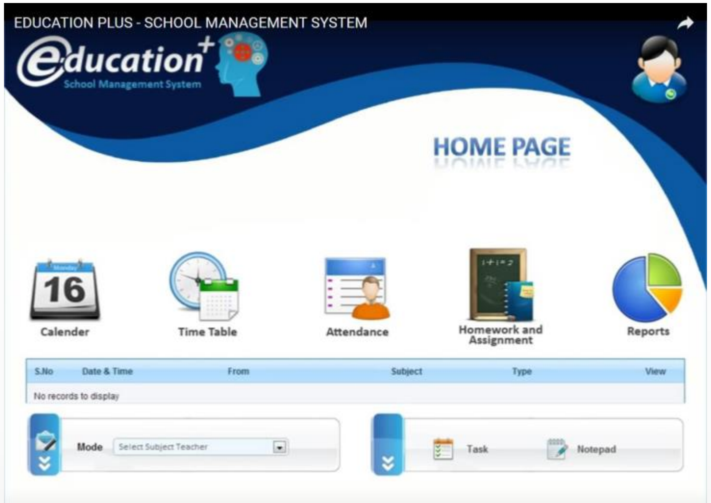
5. Sample Case studies
School Management system

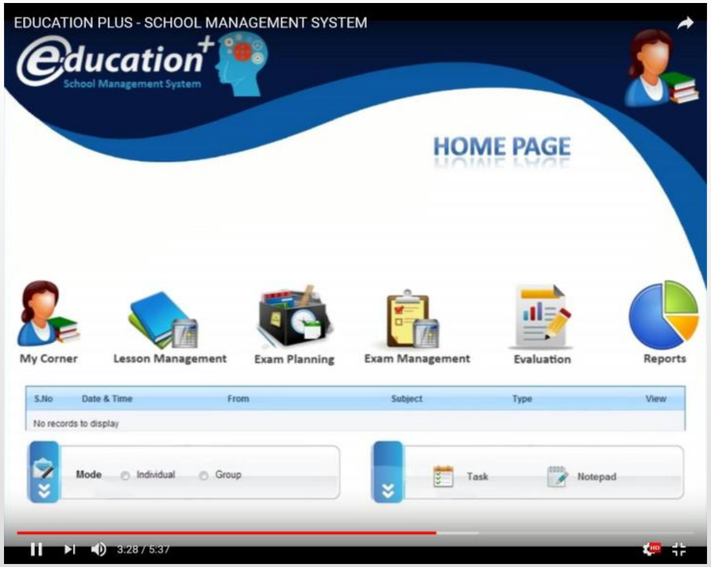
Sample Home page

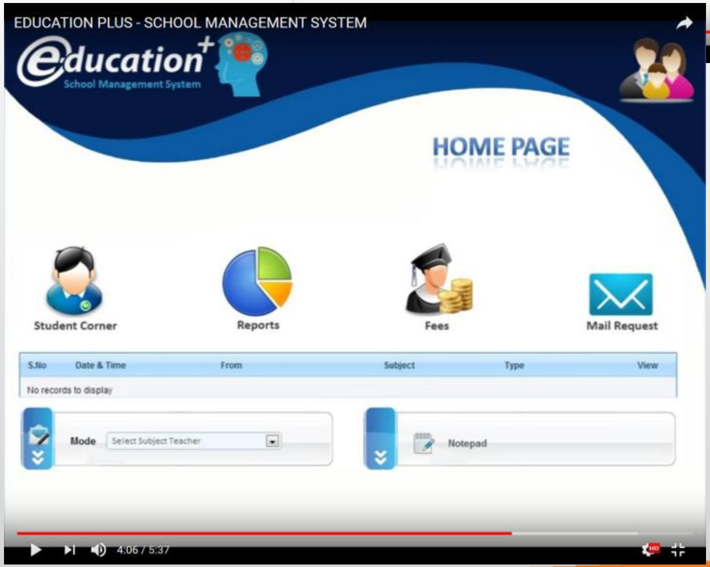

EDUCATION PLUS - SCHOOL MANAGEMENT SYSTEM
education+
School Management System
ADMIN - HOME
Master Setup
School Staff
Student
Time Table
Attendance
Lesson Management
Exam Planning
Exam Management
Evaluation
Fees
Finance
Roll Over
Login Info
Reports
Message Alert
2:07 / 5:37
HD

5. Sample Case studies
School Management system

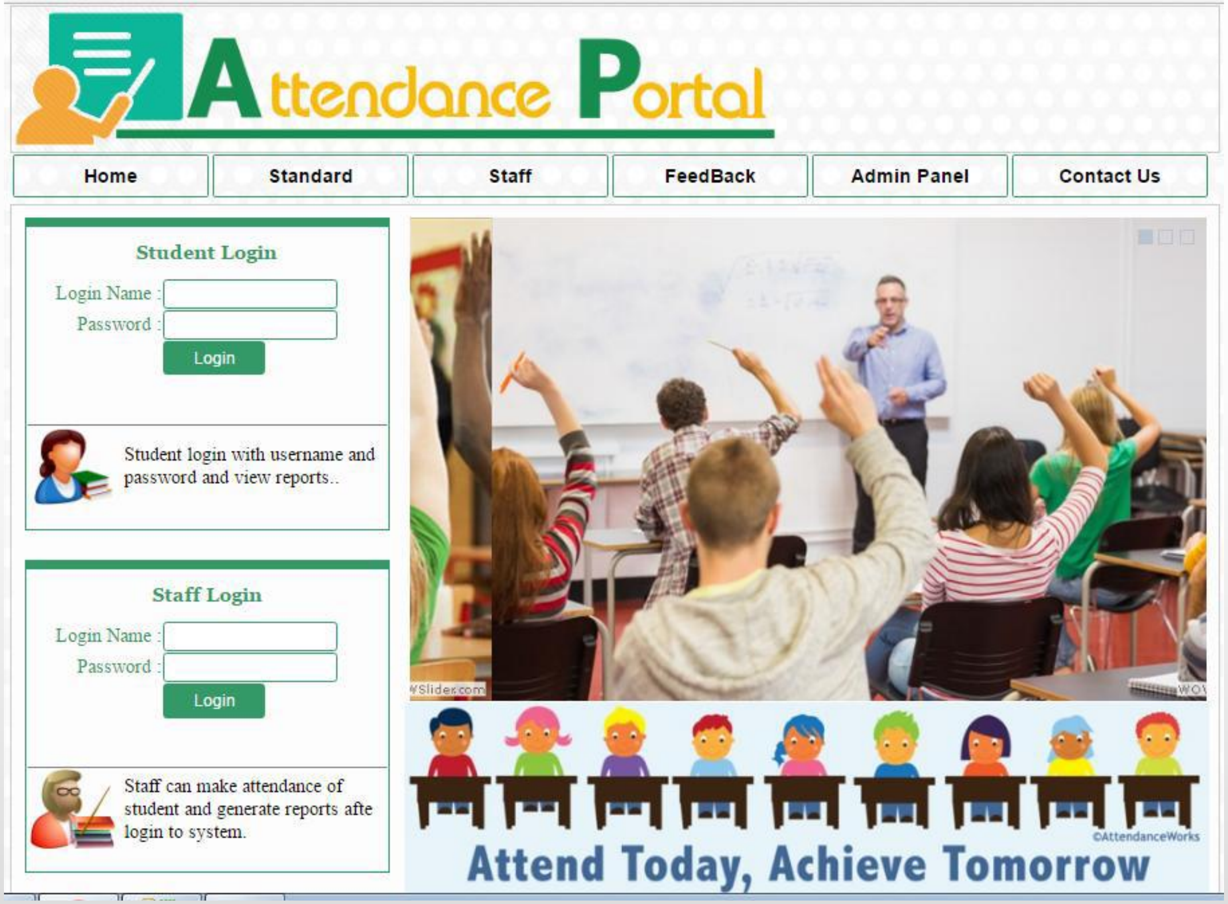
Different user roles may have different home pages


EDUCATION PLUS - SCHOOL MANAGEMENT SYSTEM
education+
School Management System
HOME PAGE
16
Calender
Time Table
Attendance
Homework and Assignment
Reports
S.No
Date & Time
From
Subject
Type
View
No records to display
Mode
Select Subject Teacher
Task
Notepad


EDUCATION PLUS - SCHOOL MANAGEMENT SYSTEM
education+
School Management System
HOME PAGE
My Corner
Lesson Management
Exam Planning
Exam Management
Evaluation
Reports
S.No
Date & Time
From
Subject
Type
View
No records to display
Mode
Individual
Group
Task
Notepad
3:28 / 5:37


EDUCATION PLUS - SCHOOL MANAGEMENT SYSTEM
education+
School Management System
HOME PAGE
Student Corner
Reports
Fees
Mail Request
S.No
Date & Time
From
Subject
Type
View
No records to display
Mode
Select Subject Teacher
Notepad
4:06 / 5:37

5. Sample Case studies
School Management system


Attendance Portal
Home
Standard
Staff
FeedBack
Admin Panel
Contact Us

Student Login

Login Name :

Password :

Login

Student login with username and password and view reports..

Staff Login

Login Name :

Password :

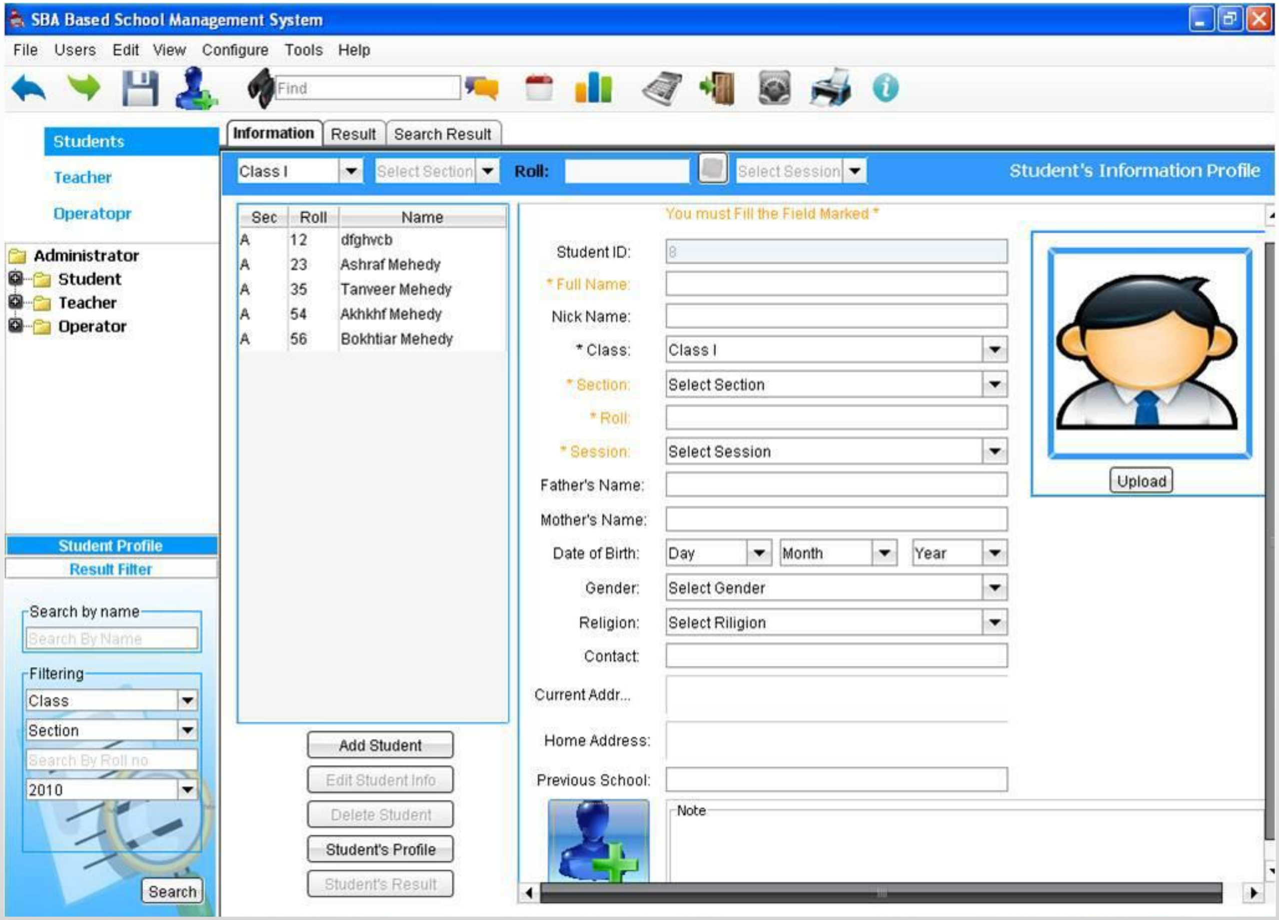
Login

Staff can make attendance of student and generate reports afte login to system.

WSlider.com
©AttendanceWorks
Attend Today, Achieve Tomorrow

5. Sample Case studies School Management system

Sample form


SBA Based School Management System
File
Users
Edit
View
Configure
Tools
Help
Find
Students
Teacher
Operatopr
Administrator
Student
Teacher
Operator
Student Profile
Result Filter
Search by name
Search By Name
Filtering
Class
Section
Search By Roll no
2010
Search
Information
Result
Search Result
Student's Information Profile
Add Student
Edit Student Info
Delete Student
Student's Profile
Student's Result
Upload
Note

Class I | Select Section | Roll: | Select Session

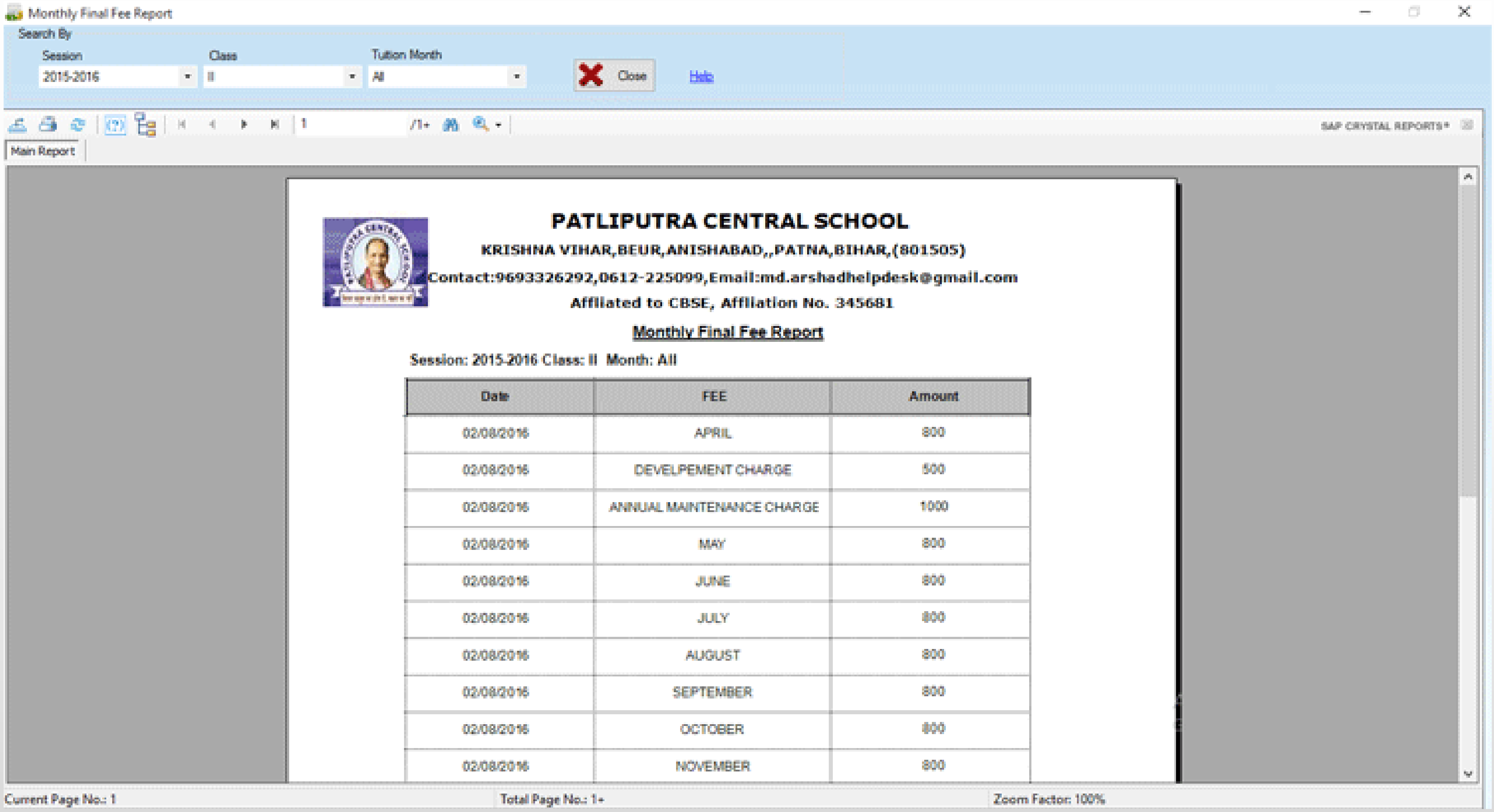
Sec	Roll	Name
A	12	dfghvcb
A	23	Ashraf Mehedy
A	35	Tanveer Mehedy
A	54	Akhkhf Mehedy
A	56	Bokhtiar Mehedy

You must Fill the Field Marked *

Student ID: 8
* Full Name:
Nick Name:
* Class: Class I
* Section: Select Section
* Roll:
* Session: Select Session
Father's Name:
Mother's Name:
Date of Birth: Day Month Year
Gender: Select Gender
Religion: Select Riligion
Contact:
Current Addr...
Home Address:
Previous School:

5. Sample Case studies School Management system

Sample report


Monthly Final Fee Report
Search By
Close
Help
SAP CRYSTAL REPORTS®
Main Report

Session: 2015-2016
Class: II
Tuition Month: All

PATLIPUTRA CENTRAL SCHOOL

KRISHNA VIHAR,BEUR,ANISHABAD,,PATNA,BIHAR,(801505)

Contact:9693326292,0612-225099,Email:md.arshadhelpdesk@gmail.com

Affliated to CBSE, Affliation No. 345681

Monthly Final Fee Report

Session: 2015-2016 Class: II Month: All

Date	FEE	Amount
02/08/2016	APRIL	800
02/08/2016	DEVELPEMENT CHARGE	500
02/08/2016	ANNUAL MAINTENANCE CHARGE	1000
02/08/2016	MAY	800
02/08/2016	JUNE	800
02/08/2016	JULY	800
02/08/2016	AUGUST	800
02/08/2016	SEPTEMBER	800
02/08/2016	OCTOBER	800
02/08/2016	NOVEMBER	800

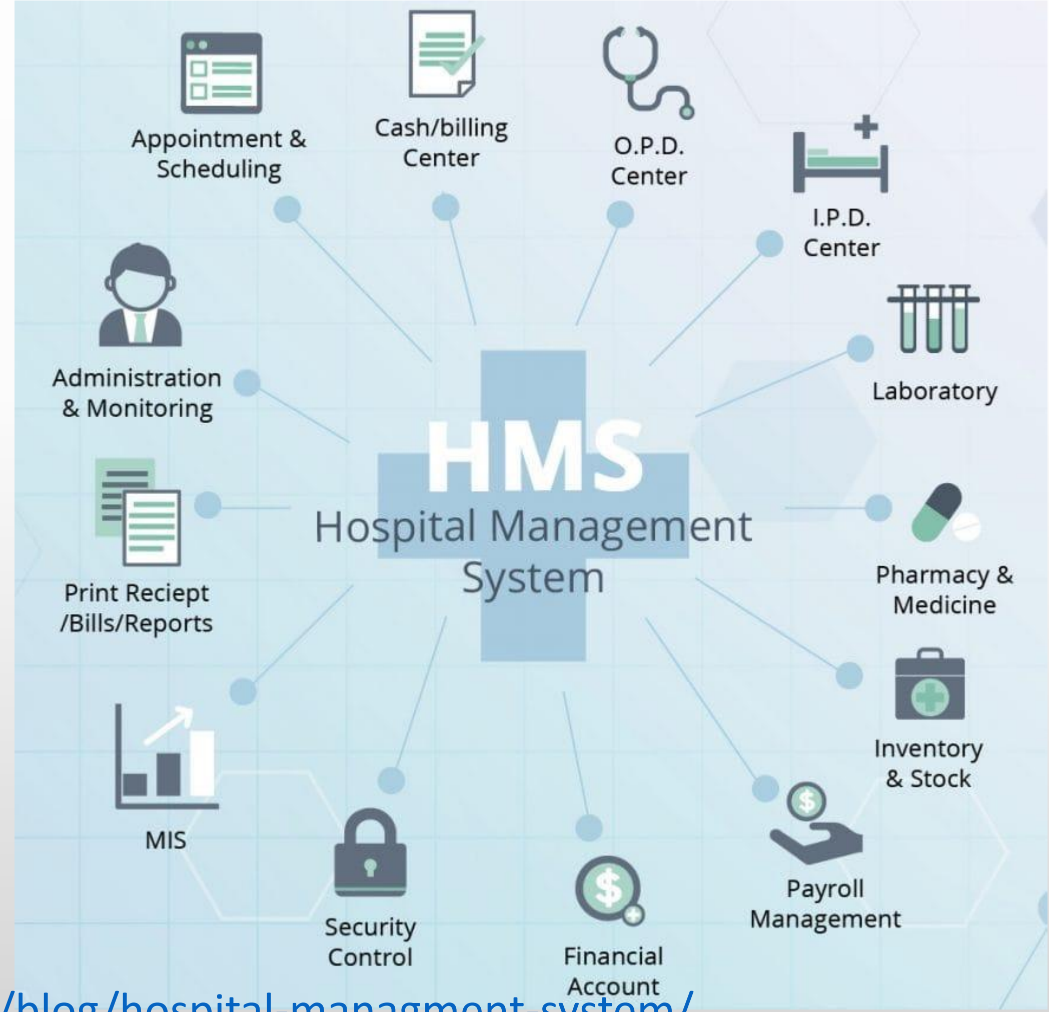
Current Page No.: 1
Total Page No.: 1+
Zoom Factor: 100%

5. Sample Case studies
Hospital Management System

- Client: Hospital in your area.
- Goal : To automate the hospital manual work
- Identify the main functions of the hospital
- Identify the people who are involved with the system and why they use the system

5. Sample Case studies
Hospital Management System

Functions can be categorized according to the client requirements

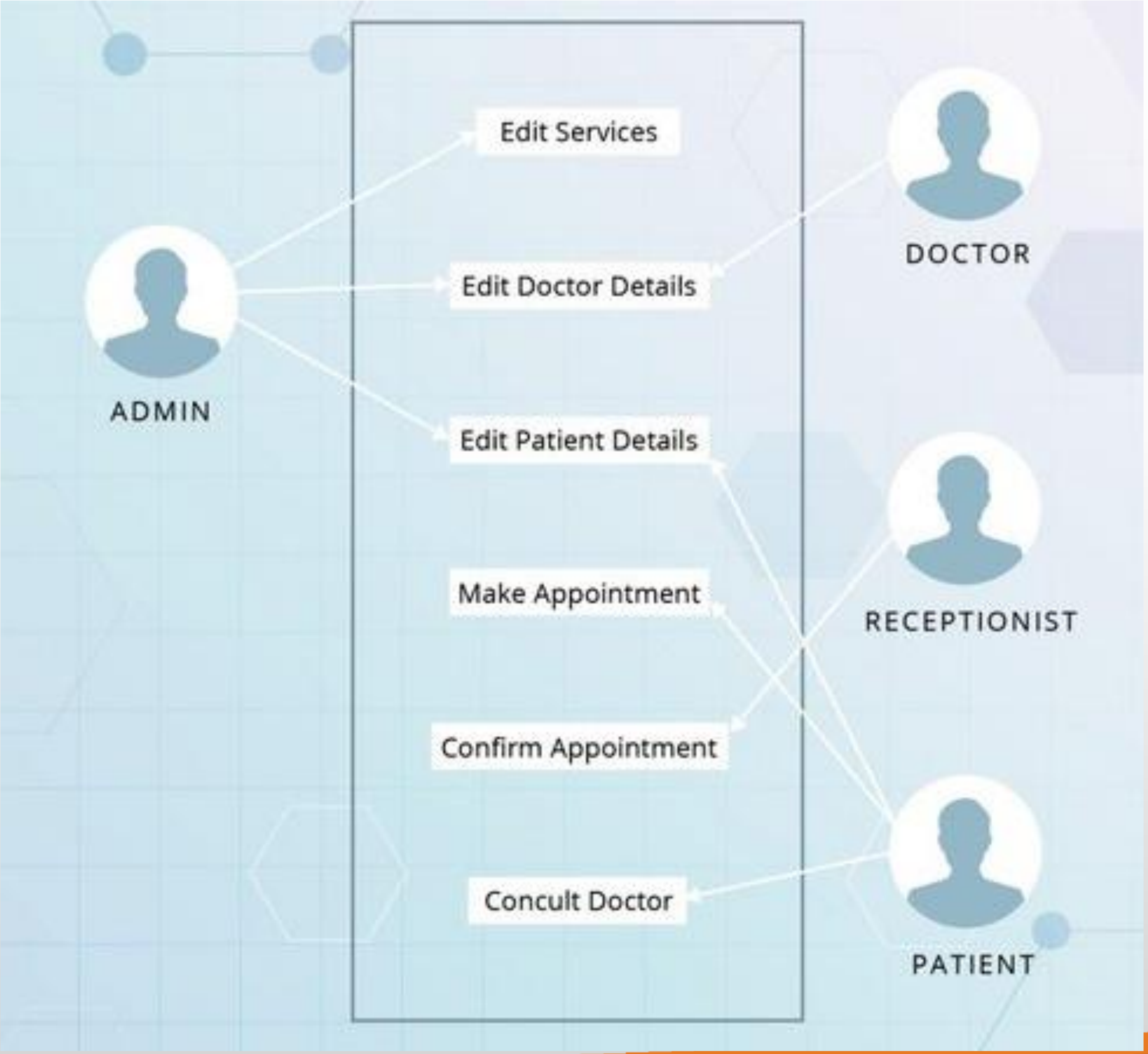

Appointment & Scheduling
Cash/billing Center
O.P.D. Center
I.P.D. Center
Administration & Monitoring
Laboratory
HMS
Hospital Management System
Print Reciept /Bills/Reports
Pharmacy & Medicine
Inventory & Stock
MIS
Security Control
Financial Account
Payroll Management

https://existek.com/blog/hospital-managment-system/

5. Sample Case studies
Hospital Management System

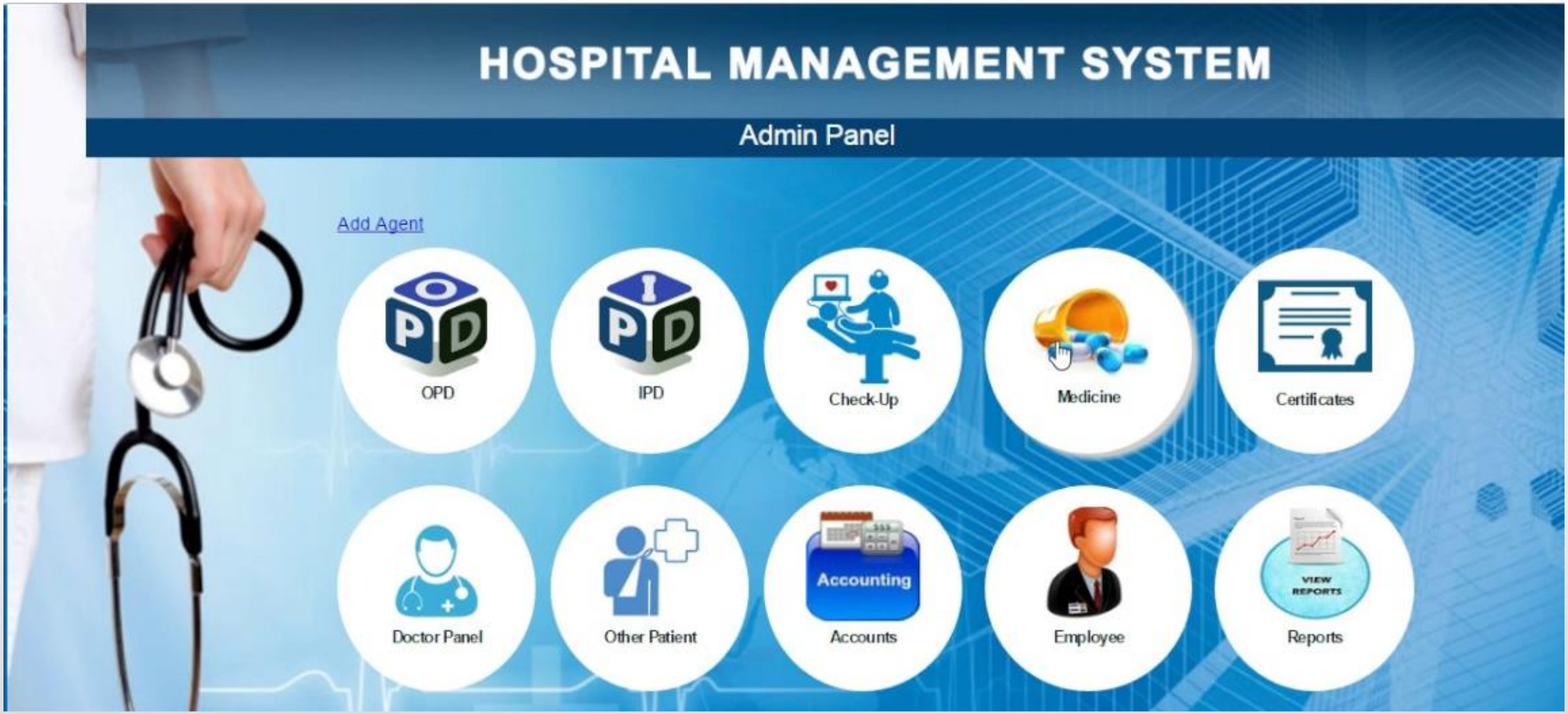
User levels

Identify who will going to use the system and what are the benefits from the system.


Edit Services
Edit Doctor Details
Edit Patient Details
Make Appointment
Confirm Appointment
Concult Doctor
ADMIN
DOCTOR
RECEPTIONIST
PATIENT

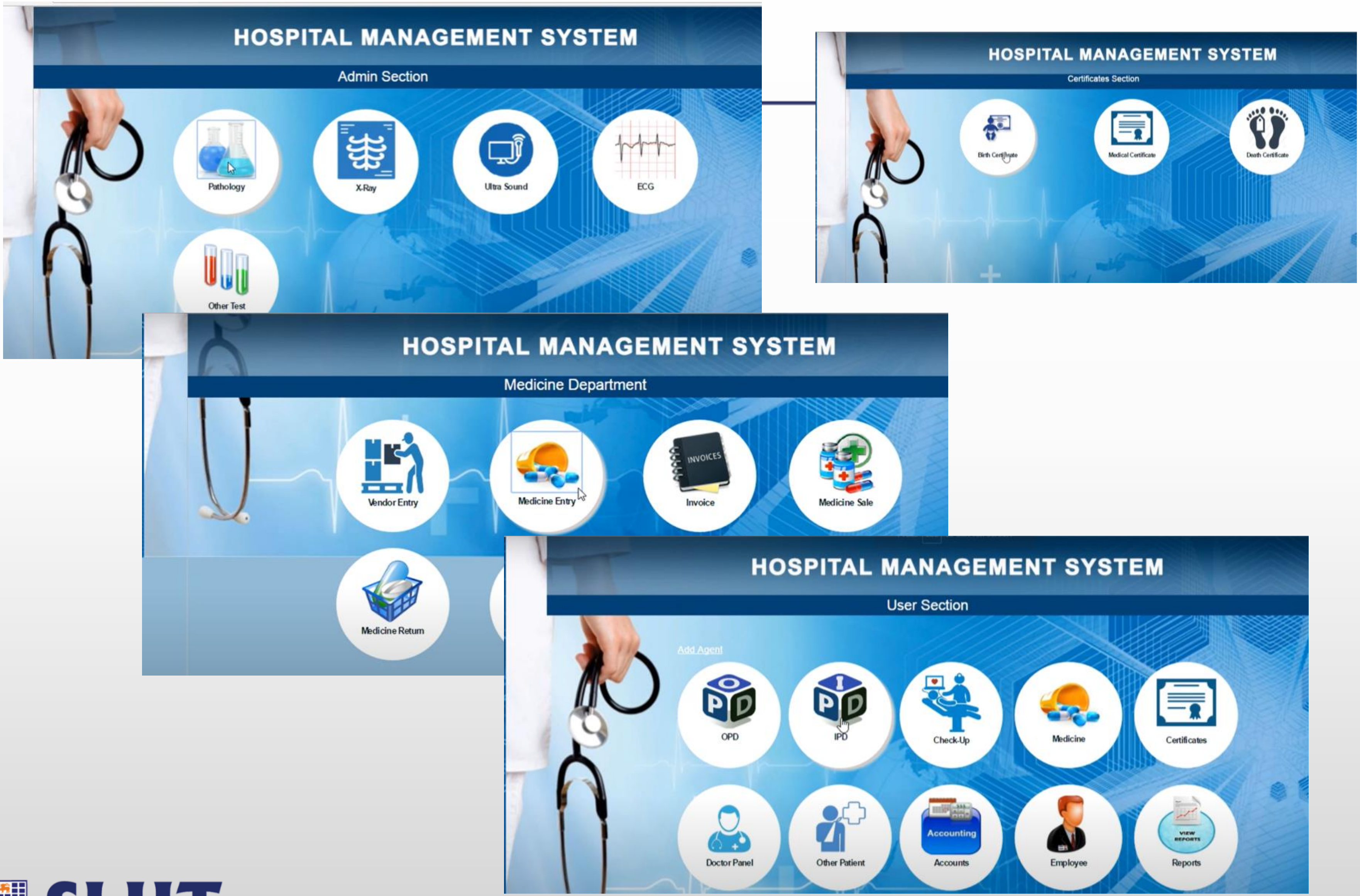
5. Sample Case studies
Hospital Management System

Sample home page

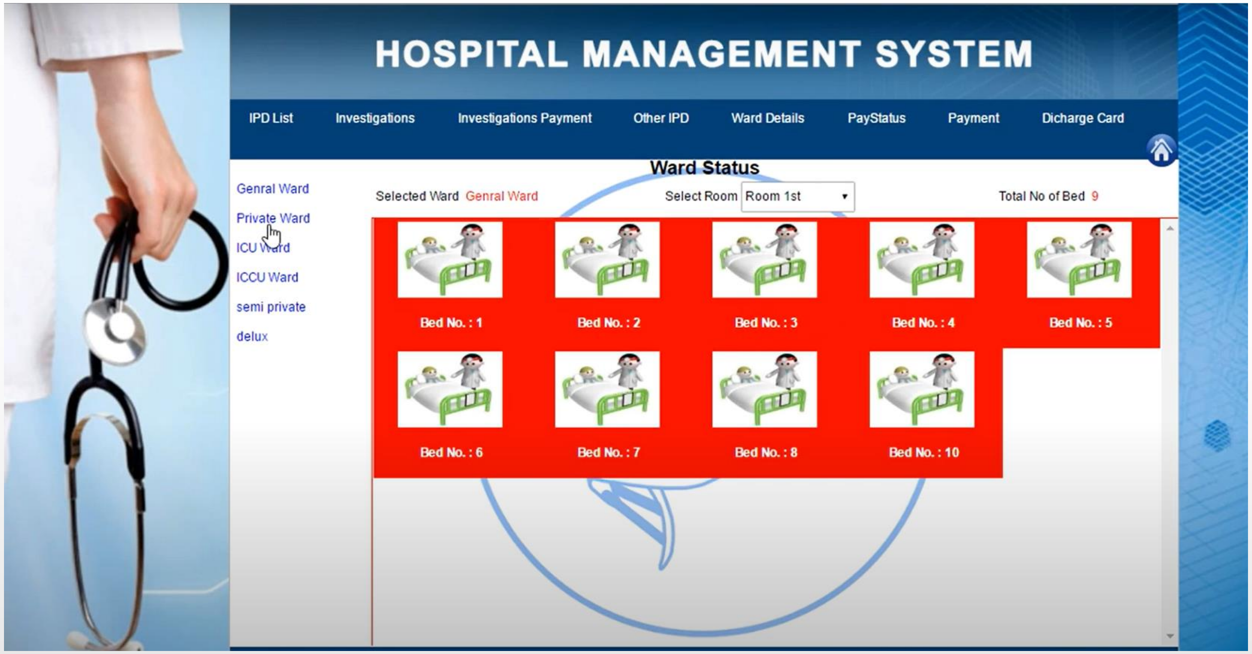

HOSPITAL MANAGEMENT SYSTEM
Admin Panel
Add Agent
OPD
IPD
Check-Up
Medicine
Certificates
Doctor Panel
Other Patient
Accounting
Accounts
Employee
VIEW REPORTS
Reports

https://www.youtube.com/watch?v=ptaU2NvmqyU

5. User roles


HOSPITAL MANAGEMENT SYSTEM
Admin Section
Pathology
X-Ray
Ultra Sound
ECG
Other Test
HOSPITAL MANAGEMENT SYSTEM
Certificates Section
Birth Certificate
Medical Certificate
Death Certificate
HOSPITAL MANAGEMENT SYSTEM
Medicine Department
Vendor Entry
Medicine Entry
INVOICES
Invoice
Medicine Sale
Medicine Return
HOSPITAL MANAGEMENT SYSTEM
User Section
Add Agent
OPD
IPD
Check-Up
Medicine
Certificates
Doctor Panel
Other Patient
Accounting
Accounts
Employee
VIEW REPORTS
Reports

5. Sample Case studies
Hospital Management System


HOSPITAL MANAGEMENT SYSTEM
IPD List
Investigations
Investigations Payment
Other IPD
Ward Details
PayStatus
Payment
Dicharge Card
Genral Ward
Private Ward
ICU Ward
ICCU Ward
semi private
delux
Bed No. : 1
Bed No. : 2
Bed No. : 3
Bed No. : 4
Bed No. : 5
Bed No. : 6
Bed No. : 7
Bed No. : 8
Bed No. : 10

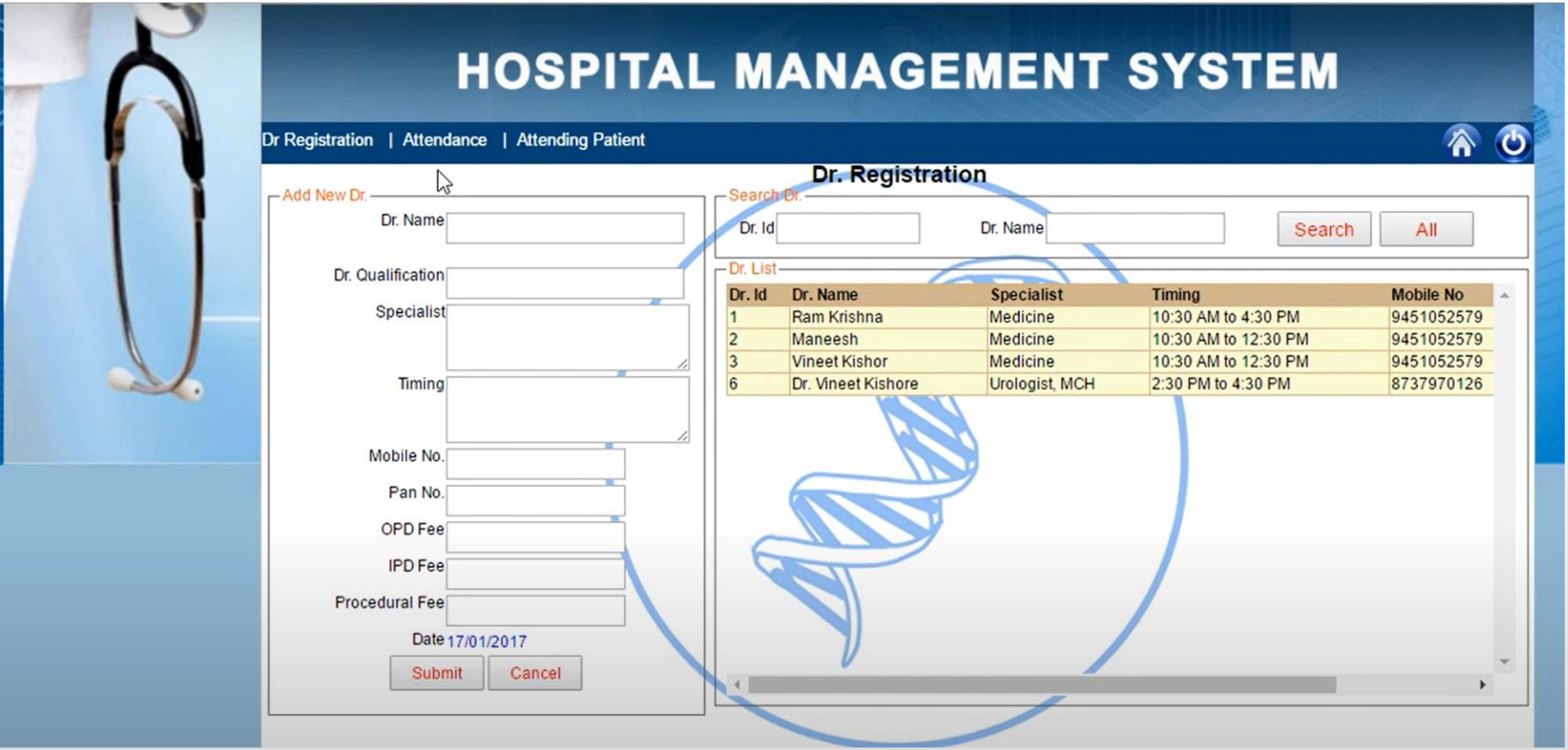
Ward Status

Selected Ward Genral Ward

Select Room Room 1st

Total No of Bed 9

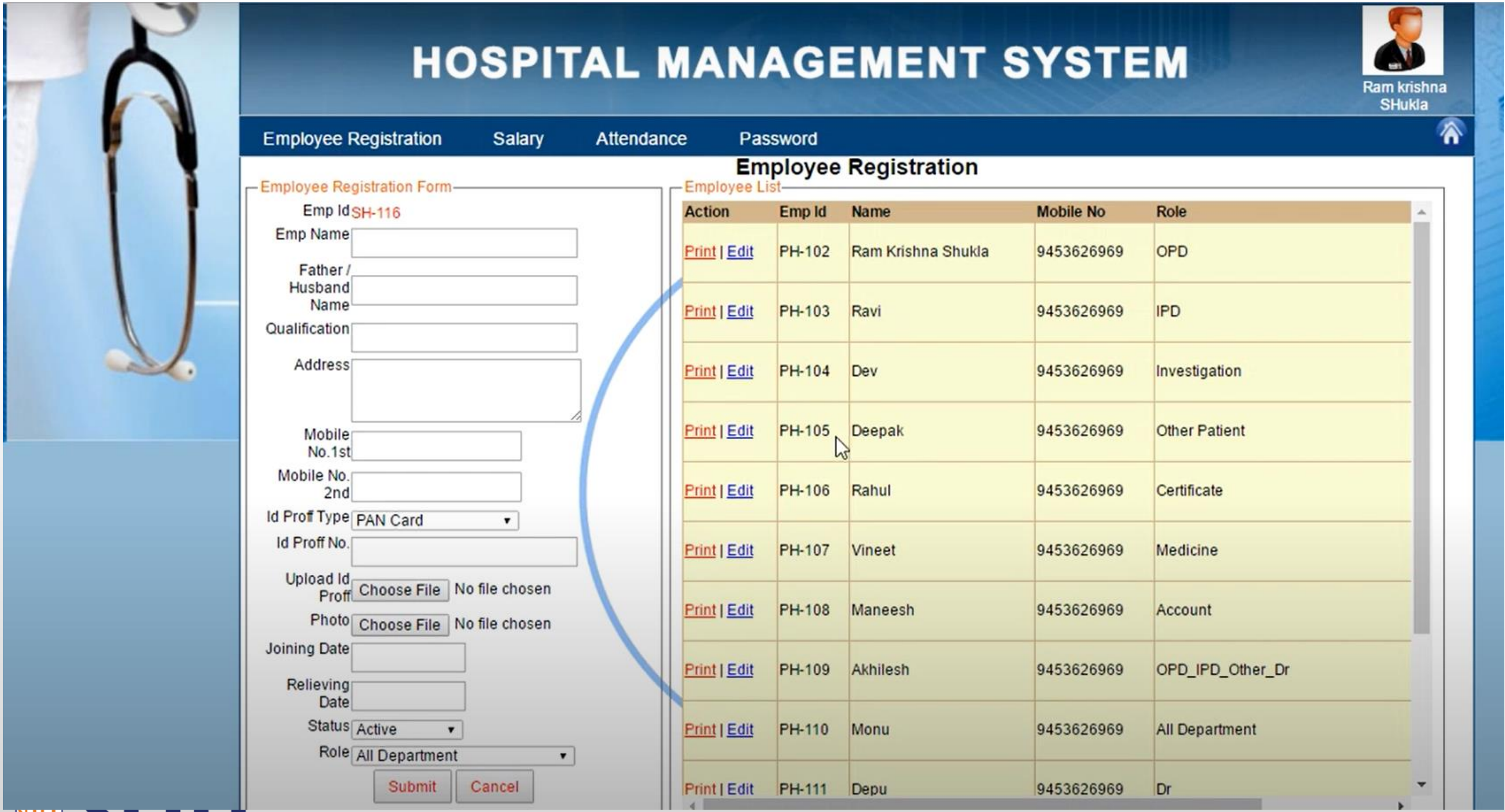
5. Sample Case studies
Hospital Management System


HOSPITAL MANAGEMENT SYSTEM
Dr Registration | Attendance | Attending Patient
Dr. Registration
Add New Dr.
Dr. Name
Dr. Qualification
Specialist
Timing
Mobile No.
Pan No.
OPD Fee
IPD Fee
Procedural Fee
Submit
Cancel
Search Dr.
Dr. Id
Dr. Name
Search
All
Dr. List

Date 17/01/2017

Dr. Id	Dr. Name	Specialist	Timing	Mobile No
1	Ram Krishna	Medicine	10:30 AM to 4:30 PM	9451052579
2	Maneesh	Medicine	10:30 AM to 12:30 PM	9451052579
3	Vineet Kishor	Medicine	10:30 AM to 12:30 PM	9451052579
6	Dr. Vineet Kishore	Urologist, MCH	2:30 PM to 4:30 PM	8737970126

5. Sample Case studies
Hospital Management System


HOSPITAL MANAGEMENT SYSTEM
Ram krishna SHukla
Employee Registration
Salary
Attendance
Password
Choose File
Choose File
Submit
Cancel

Employee Registration

Employee Registration Form

Emp Id	SH-116
Emp Name	
Father / Husband Name	
Qualification	
Address	
Mobile No.1st	
Mobile No. 2nd	
Id Proff Type	PAN Card
Id Proff No.	
Upload Id Proff	No file chosen
Photo	No file chosen
Joining Date	
Relieving Date	
Status	Active
Role	All Department

Employee List

Action	Emp Id	Name	Mobile No	Role
Print | Edit	PH-102	Ram Krishna Shukla	9453626969	OPD
Print | Edit	PH-103	Ravi	9453626969	IPD
Print | Edit	PH-104	Dev	9453626969	Investigation
Print | Edit	PH-105	Deepak	9453626969	Other Patient
Print | Edit	PH-106	Rahul	9453626969	Certificate
Print | Edit	PH-107	Vineet	9453626969	Medicine
Print | Edit	PH-108	Maneesh	9453626969	Account
Print | Edit	PH-109	Akhilesh	9453626969	OPD_IPD_Other_Dr
Print | Edit	PH-110	Monu	9453626969	All Department
Print | Edit	PH-111	Depu	9453626969	Dr

Discover Your Future

Any Questions ???

Tasks to do(week 1)

1. Activity 1
2. Use a project management tool to manage your team