CLINIC MANAGEMENT SYSTEM

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Abstract : The purpose of the Clinic management system is to maintain the records of the patient including patient medical reports, appointment booking and cancellation, patients invoices, generating prescription, billing and report generation and send an alert to patient as well as doctor about appointments. The system can maintain patient personal details, consent form generation, analysis of patient before and after treatment, create prescription, keeps a record of planned and completed procedures and maintains a list of products dispensed as a part of treatment. It will also create an alert message for the medicines which are near about to expiry and also when the inventory stock is low.

Index Terms- CMS System, Case Study, CMS Survey, modules, Management System.
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I. INTRODUCTION

The main purpose behind the system is for assigning a user-friendly user interface. The CMS controls all the important contents and information that are handled in person. As the information is filled inside the system, the system does not require separate people to handle every section. A single handler is sufficient to handle all the reports and data. The security can be set according to the user's conditions and requirements.

- ➤ High capacity of the information can be stored with the case.
- ➤ Maintenance of the files of data is easy and handy.
- ➤ The recorded information is always up to date.
- ➤ Analysis of stored information is easy.
- ➤ Information can be developed with cases.
- ➤ Detailed and splendid calculations are made.
- ➤ Labor work is minimized.

II. LITERATURE SURVEY

CMS is stands for Clinic Management System. Clinic Management System (CMS) is a clinic management software or a system which is used to maintain the data of the doctors or any clinic. It gave a thorough knowledge about the process, normally in day to day time period using the common data given by the database management system.

CMS system tracks resources —It keeps the path of the assets, revenue, development area and the condition of business engagements like: gain and plan. The application that creates the system transfers the content throughout the various section.to give the main data. CMS assigns the instruction flow and manages connection to other partners. Every clinic has to maintain a management system which may consist of performance analysis, inventory system, report generation, patient profile, payment information, clinical information and many more. Handling all these tasks manually becomes a very hectic and complicated job for the receptionist & doctor. In such case there is a high chance of misplacement of the important data and data can be lost easily when more manual work is involved . Hence to overcome such loss of data, there is a need to design and develop a software.

CMS is a software system where the doctor can get all information about a particular patient considering the academic report. It is a software which a user friendly as well as eye catching interface system. The main purpose

behind this proposed system is to change the hand-operated system of the clinic with an automatic software system. This system also maintains the data properly and up to date which is conserved for a long period of time.

CMS system provides a single approach point to all the handler of the institute. Therefore, the departments used to work separately and independently. If anyone wanted to use that information then it wasn't that accessible with such system. Study of these system showcases that all the registrations used to be done manually on paper, which was a very complex task. Creation of the report was also impossible with this system. Even the task of the clinic was manually handled and saved. This entire data/information is maintained through the files or registers in the clinic.

Ongoing mode of working is based on hand-operated system in which all the information is collected from the respective individual and then it is inserted in the files. This is very time consuming and tedious job. The existing system in depended on the pupil, is the pupil is not present. The treatment of the patient will be affected. Coz of lots of data many issues are involved in handling, updating and collecting the desired data. Since the old system is totally handled manually, few of the difficulties in the present system are as follows:-

➢ Repetition of information.
➢ Problem in renewing the data.
➢ Non-integrated data.
➢ Lag in collecting data.
➢ Difficulty for storing the information.

III. PROPOSED SYSTEM

Problems with conventional system:
a. Lack of immediate retrievals: The information is very difficult to retrieve and to find particular information like- E.g. - To find out about the patient's history, the user has to go through various registers. This results in inconvenience and wastage of time.

b. Lack of immediate information storage: The information generated by various transactions takes time and efforts to be stored at right place.

c. Lack of prompt updating: Various changes to information like patient details or immunization details of child are difficult to make as paper work is involved.

d. Error prone manual calculation: Manual calculations are error prone and take a lot of time this may result in incorrect information. For example calculation of patient's bill based various treatments.

e. Preparation of accurate and prompt reports:- This becomes a difficult task as information is difficult to collect from various registers.

IV. SYSTEM DESIGN

   A System Diagram (SD) is a diagram that presents the user outside the system that can connect with the system. This diagram is a system which shows the output to the outside factors. System Diagrams are used to present the more necessary outside factors that connects with the system. A system diagram is a visual model of a system , its components, and their interactions. With supporting documentation, it can capture all the essential information of a system's design. There are many variations of diagramming style that all fall under this rubric. The style presented here is intended to be optimally consistent with the rest of this courseware.
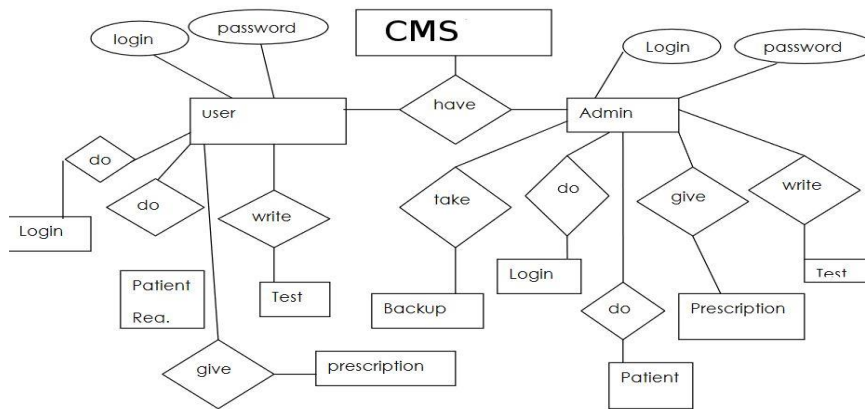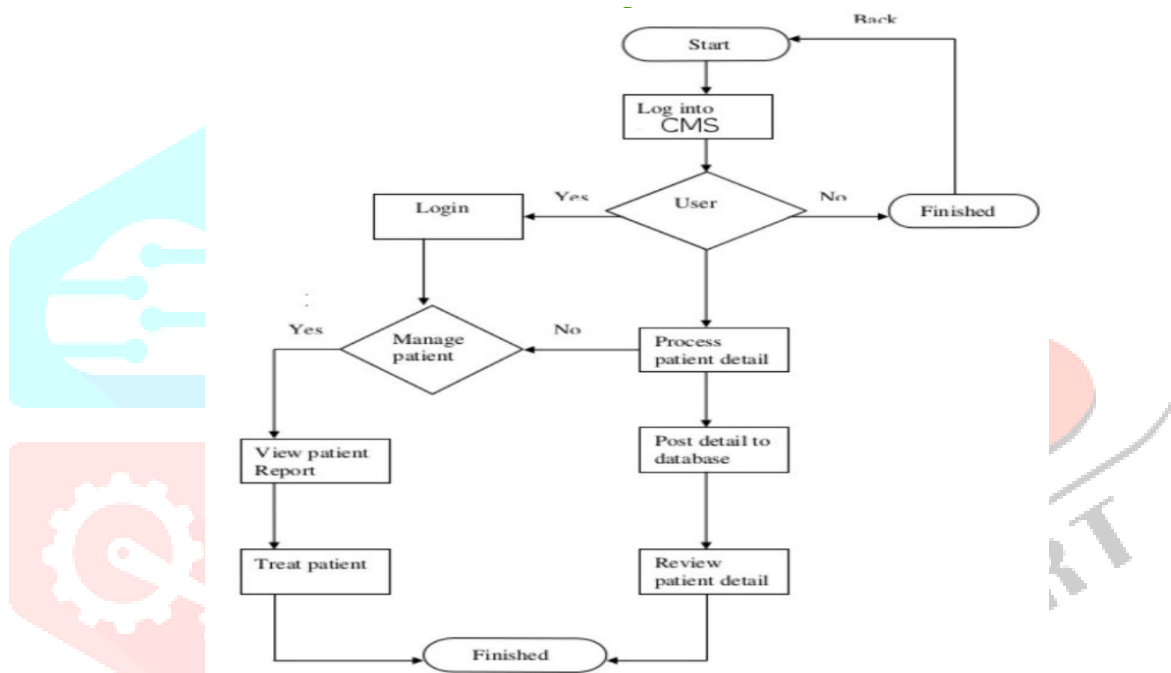
Fig. 3.b.1 System Design.

a.   Core Module

Fig.3.b..2 Core Modules

b.   Doctor Module

The doctor has entire rights to the working system. He is the one who handles the System, Patient registrations, payment procedures. At the start he enters the appointed staff of the assigned department. Once the rooms of clinic are reserved for them, the treatment is carried out. All these functions are handled by the doctor and receptionist only. There are some specific privileges such as delete the patient, take backup of data, give discount are given only to doctor. He is the one who maintains all the accounts of the assigned staff and registered patients.

All the manual work of clinic is skipped through this system.

Workflow:
1. Start
2. Sign In
3. Add/ Remove Patient
4. Add/ Remove/ Edit Appointment
5. Add/Remove/Edit Treatment
6. Add/ Remove/Edit Inventory
7. Sign Out
8. Stop.

c. Patient Module

The new patients are entered in the system by the receptionist. When the patient visits the clinic their patient-id, profile picture, treatment done, prescriptions and other information which are handled by the receptionist and doctor .
Workflow:

1. Start
2. Sign in
3. View profile
4. View Treatments
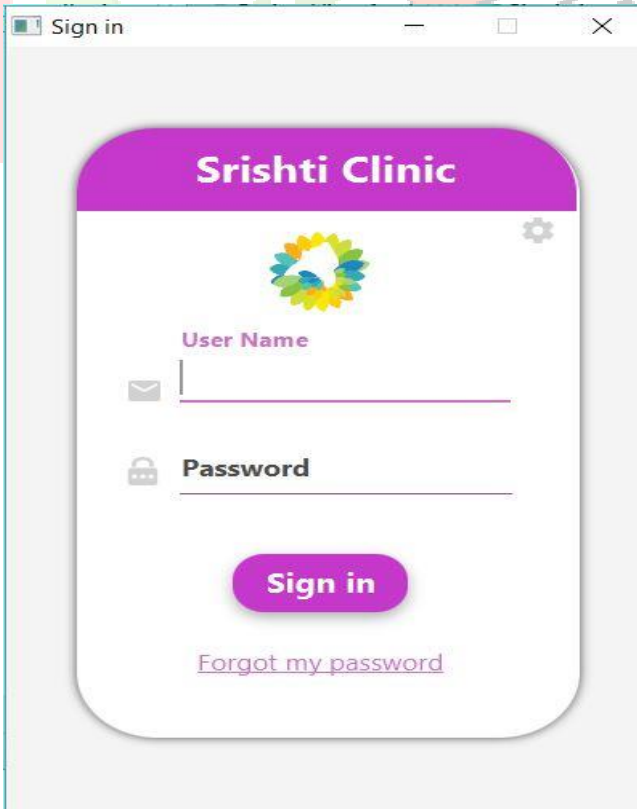5. View Prescription/Bill
6. Sign out

d. Staff Module

The Faculty members are installed by the admin and the login information is generated by the admin which is further handled by the Receptionist. The faculty has the entire rights to handle the data of their patients for their respective ways. Faculty members are given entire rights to give the information and can also upload the note for their specific patient .Faculty can create a day to day, monthly annual report of the Clinic based on Inventory, Treatments done.
Workflow 1:

1. Start
2. Sign in
3. Add Patient
4. Add/ Edit Appointment
5. Add/Edit Treatment
6. Add/Edit Inventory
7. Sign out
8. Stop

V. RESULT AND ANALYSIS

1.Login Screen:

2.Home Screen:-

3.Appointment:-
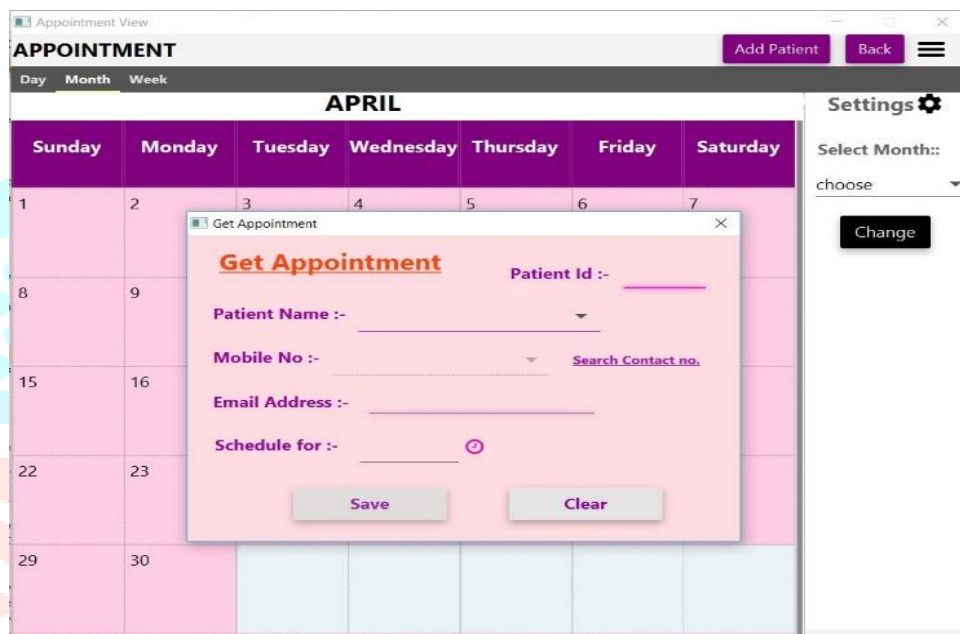
4.Patient Registration Screen:-
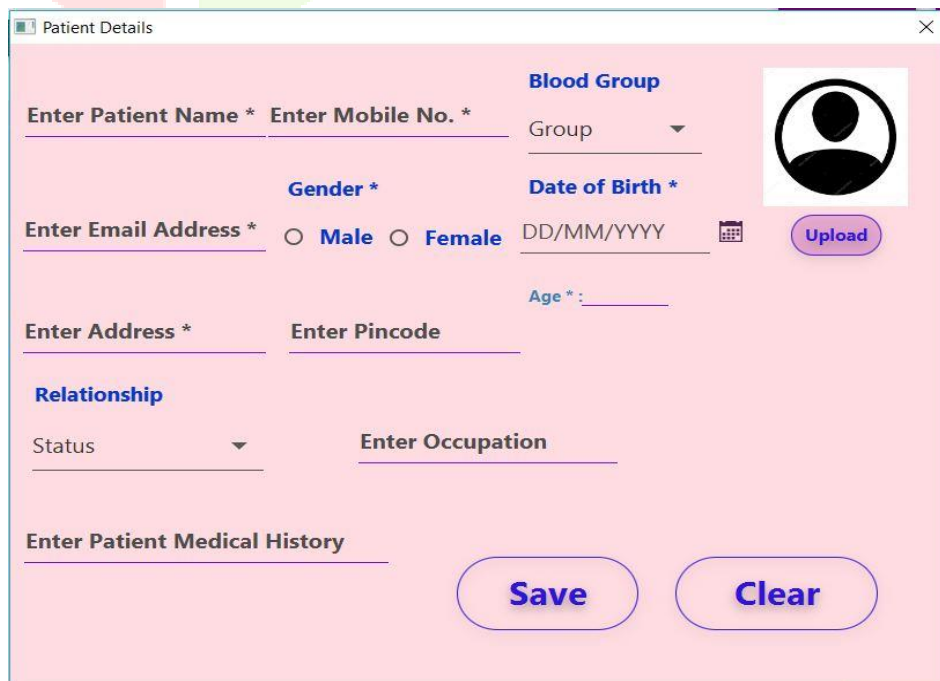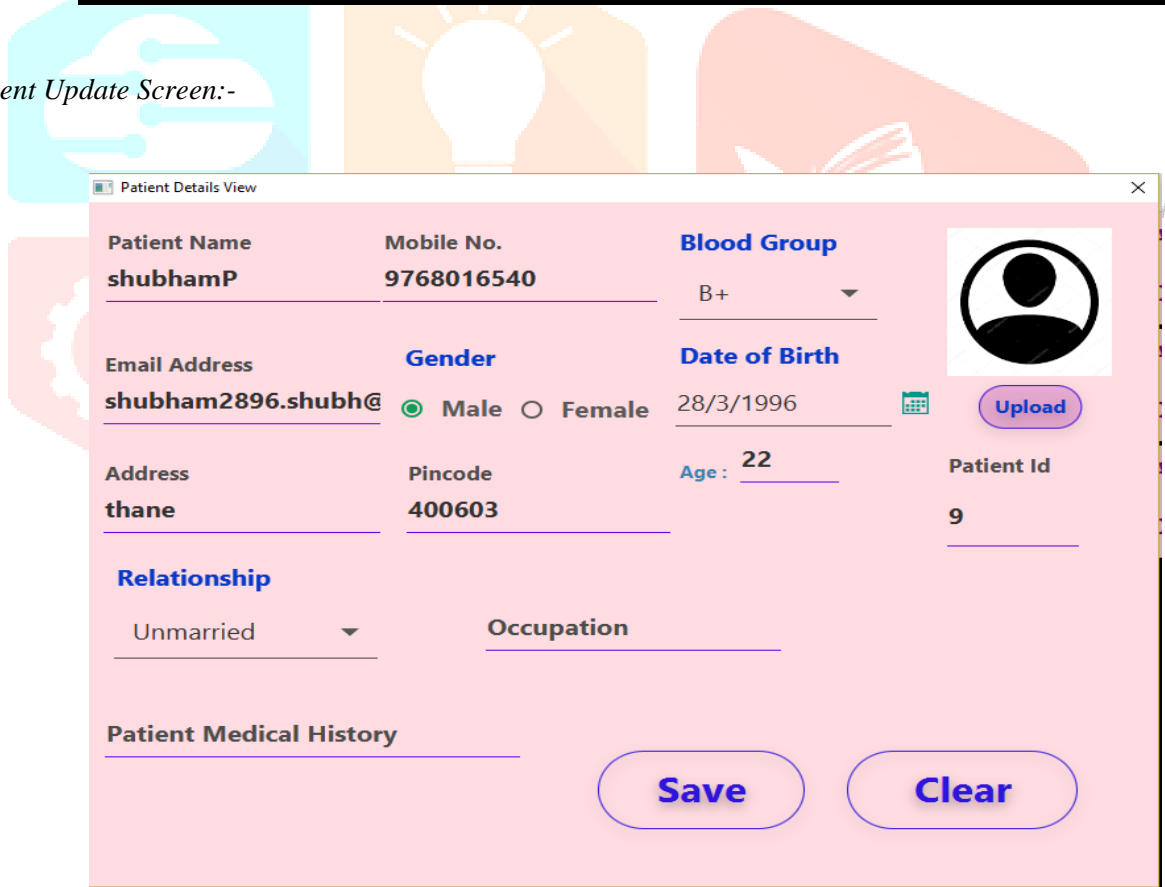
5.Appointment List Screen:-

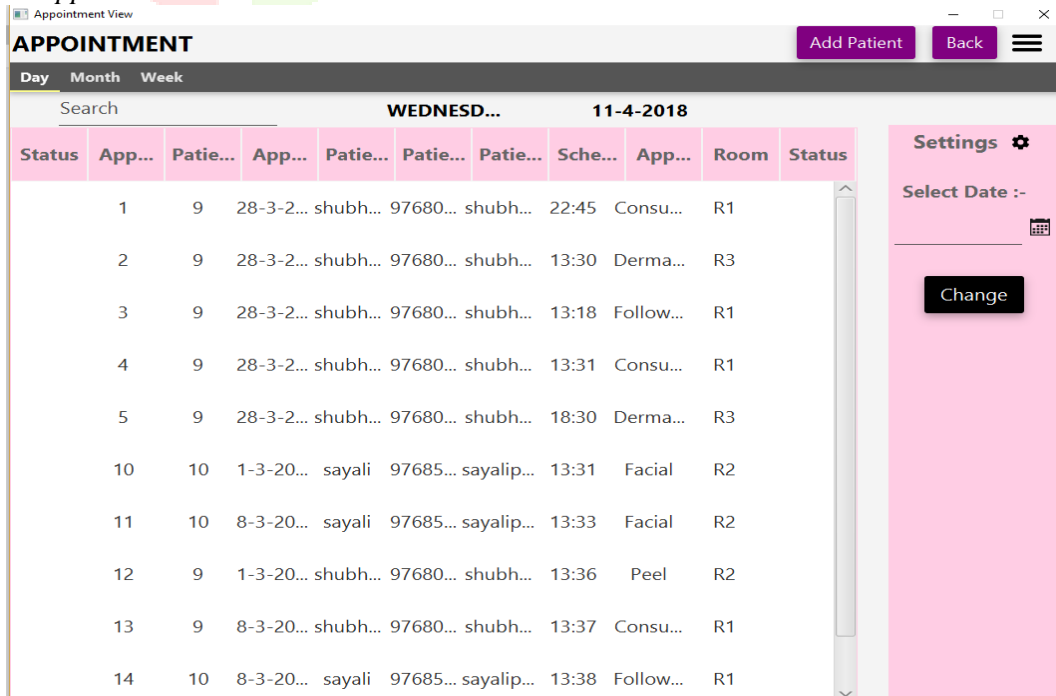*6.Patient Update Screen:-*
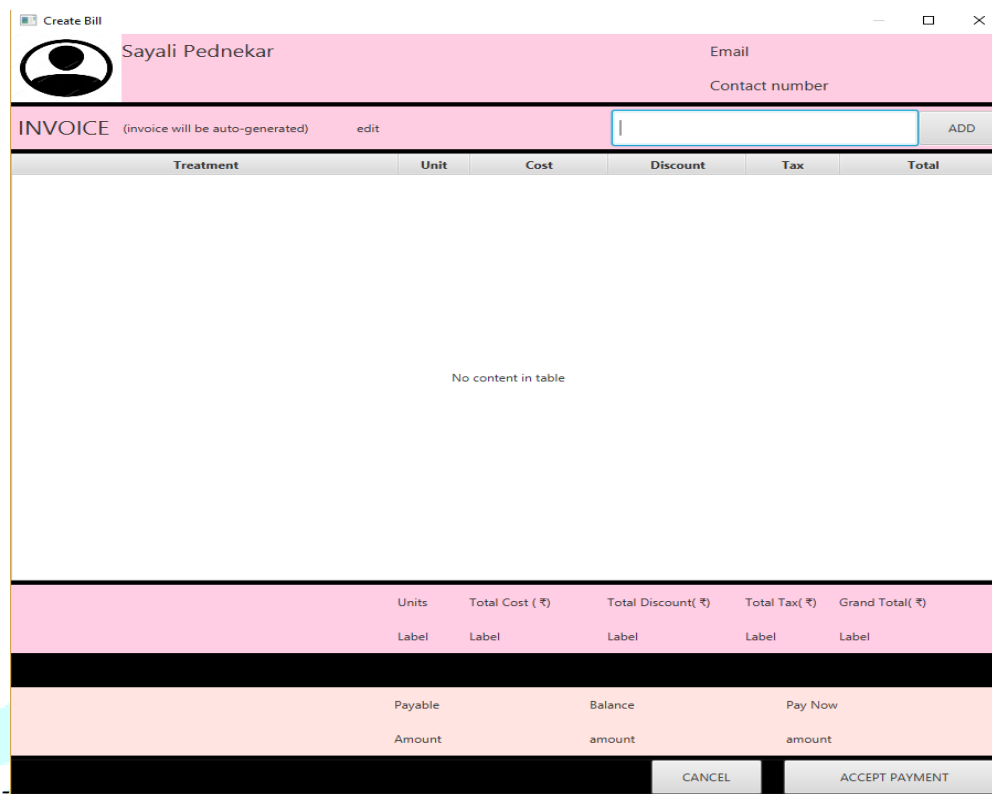
7.Drawer View :-

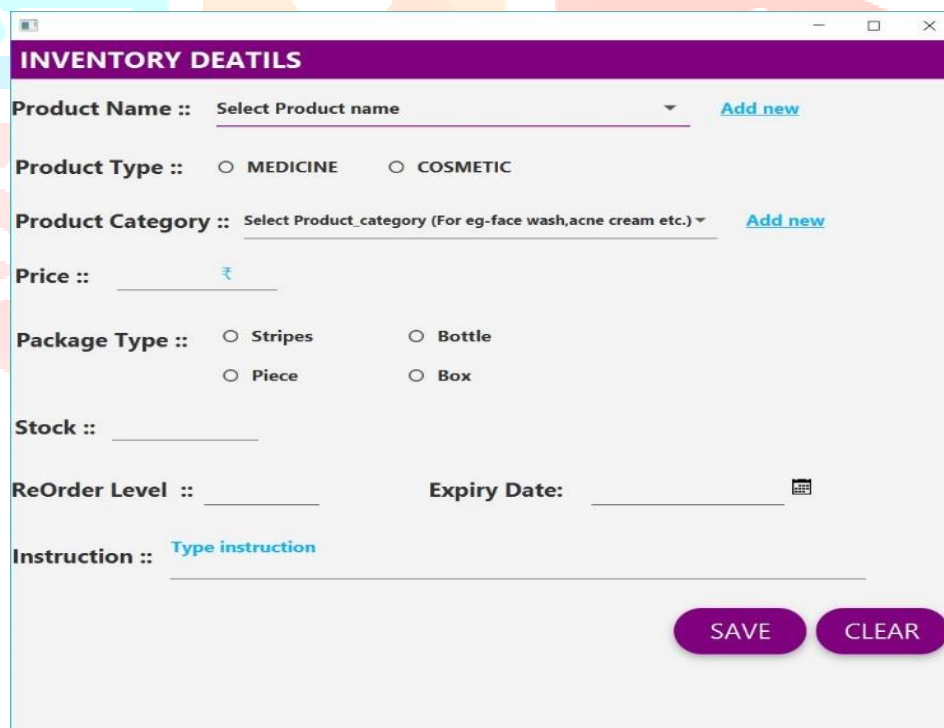*8.Day View Appointment Screen:-*
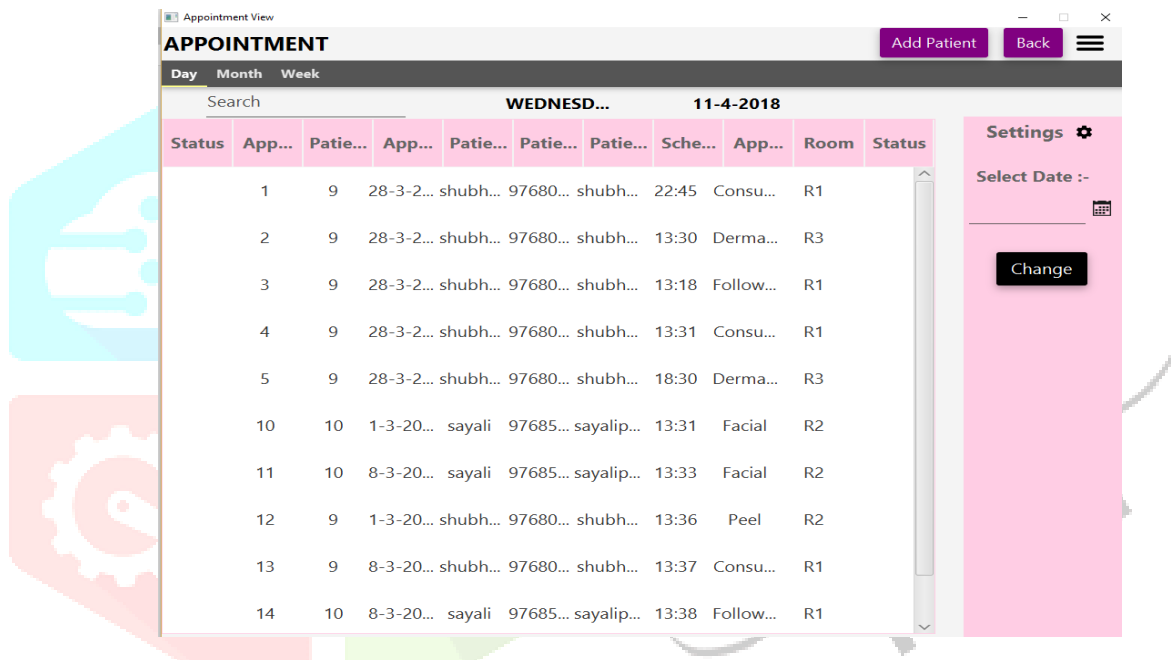
9.Weekly view Appointment Screen:-

10.Add Bill Screen:

11.Inventory Screen:-

VI. CONCLUSION

- The central issuer for controlling and handling the task by the doctor is therefore solved. before this it was quite hectic for handling the timetable and to keep in touch with day to day agenda.
- But by creating this software the administrator can now handle the task easily and also save his/her time.
- The quality time of the doctor is also saved and the manual man power is also saved, the data can be retrieved timely and also whenever it is required by the user.
- The adequate application of the task by distributing it and by allocating the exact outputs.
- The storage facility will make the task easy of the handler.
- Therefore the proposed system will be accessible to the doctor by making his/her task easy.

VII. REFERENCES

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