Patient

- Edit his profile information

Every patient will be able to have a profile created by him or by the receptionists containing his medical history.

- Online reservation for any service

Patients can check all the doctors' available slots and make reservation online.

- View his medical history

They can check their medical results and medical reports online, including cancer results.

- Export medical reports

They can export their medical reports to use anywhere.

- Complain and suggest

They can submit complaints for medical managers to review.

- Feedback form for any employee

They can rate any employee or write a review for them.

- View doctor's reviews and ratings

Doctor

- Edit his profile information
- View the medical history for any patient.

They can provide better diagnosis for patients as they can check their profile before the appointment.

- Add or upload results and reports

They can create and upload examination results for the patient and forward

requests for them allowing smoother process for the patient comfort.

- Forward requests to other doctors for any required task (Analysis - Rays ...etc.)

Doctors can forward examination results to each other's.

- Edit and View his own schedule

Doctors can edit their time slots by requesting that to the manager.

- View his own feedbacks and ratings

Receptionist

- Registration for patients and Making accounts for them

Receptionist can make an account for the first time patient and explain for the patient how the system in the hospital is and how to use the application.

- Reservations for the patients at hospital

Patients have the option to reserve appointments through the receptionist not only through the application.

- View the doctor's schedule & Check employees availability

Receptionists can see clearly who are the available doctors right now and see the empty time slots for patients to make reservation and can be able to see patient profiles to see their medical history.

- Receptionists can forward the examination requests to doctors.

If any doctor has been late to upload any result for a patient, the receptionist can send a request to remind the doctor.

- Access the database of doctors, users
- View his own feedbacks and rating

Admin

- Access all data base for every one deal with system

All hospital info with all doctors and officials and all departments are available for the admin.
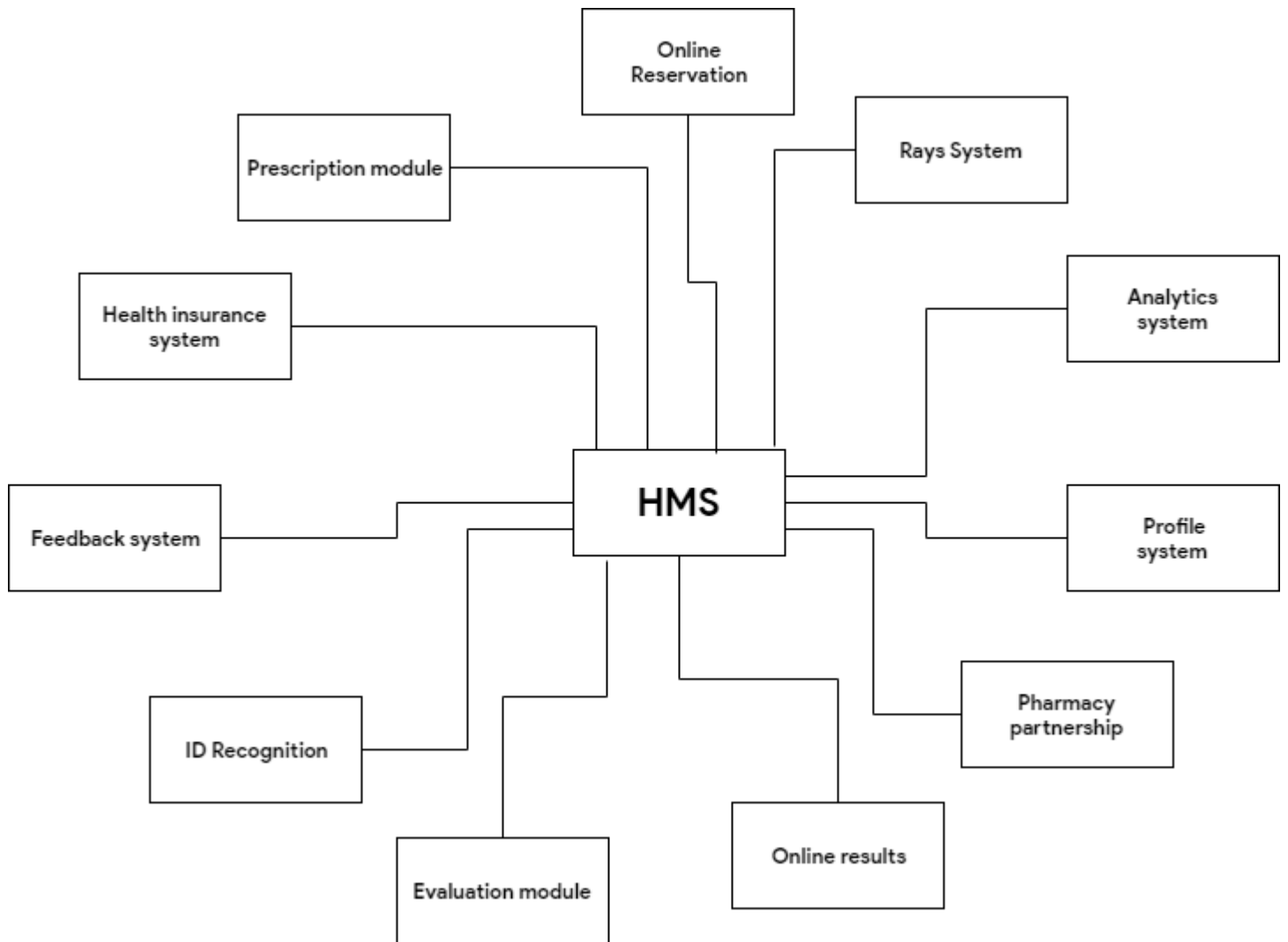
- View all evaluations, feedback and ratings for all employees

Medical Managers can track work progress through attendance systems for doctors and workers using computer vision and through complaints.

- Feedback, Alert and Punishment forms based on evaluations
- Obtain reports about hospital resources

Pharmacies cooperation system allowing medical prescription generator.

Online
Reservation

Prescription module

Rays System

Health insurance
system

Analytics
system

HMS

Feedback system

Profile
system

ID Recognition

Pharmacy
partnership

Evaluation module

Online results

-System Functions

[FR_ORV]Online Reservation Functions

[FR_ORV_1] Make Appointment

-Description : This function is used to make an appointment with a doctor
-Inputs : Doctor id, Timeslot
-Output : Boolean Value
-Pre-Conditions : Registered Patient , Free Doctor
-Post-Conditions : Close the slot

[FR_ORV_2] Cancel Appointment

-Description : This function is used to cancel an appointment with a doctor
-Inputs : appointment id
-Output : Boolean Value
-Pre-Conditions : a reserved appointment , cancellation before certain time
-Post-Conditions : none

[FR_ORV_3]] Delete Appointment

-Description : This function is used to delete an appointment with a doctor
-Inputs : appointment id
-Output : Boolean Value
-Pre-Conditions : none
-Post-Conditions : none

[FR_ANT]Analysis System Functions

[FR_ANT_1] Generate Analysis Result

-Description : This function is used to generate the result of analysis
-Inputs : analysis data text
-Output : PDF
-Pre-Conditions : An Appointment with a doctor
-Post-Conditions : none

[FR_ANT_2] Edit Analysis Result

-Description : This function is used to edit the result of analysis
-Inputs : analysis result id
-Output : PDF
-Pre-Conditions : none
-Post-Conditions : none

[FR_ANT_3] Delete Analysis Result

-Description : This function is used to delete the result of analysis
-Inputs : analysis data id
-Output : Boolean
-Pre-Conditions : none
-Post-Conditions : none

[FR_FDB]Feedback System Functions

[FR_FDB_1] Create Feedback

-Description : This function is used to give a feedback
-Inputs : patient id , category of the feedback, feedback text data
-Output : Feedback Object
-Pre-Conditions : Signed in patient
-Post-Conditions : none

[FR_FDB_2] View Feedbacks

-Description : This function is used to view feedbacks of a certain category
-Inputs : category of the feedbacks
-Output : PDF formatted feedbacks
-Pre-Conditions : none
-Post-Conditions : none

[FR_FDB_3] Delete Feedbacks

-Description : This function is used to delete feedbacks
-Inputs : feedbacks ids
-Output : Boolean
-Pre-Conditions : none
-Post-Conditions : none

[FR_PRS]Prescription Functions

[FR_PRS_1] Generate Prescription

-Description : This function is used to generate a medical prescription for a patient
-Inputs : patient id, medicines ids
-Output : prescription
-Pre-Conditions : Examination result to append the prescription to
-Post-Conditions : none

[FR_PRS_2] Edit Prescription

-Description : This function is used to edit a medical prescription for a patient
-Inputs : prescription id
-Output : prescription
-Pre-Conditions : Examination result to append the prescription to
-Post-Conditions : none

[FR_PRS_3] Delete Prescription

-Description : This function is used to delete a medical prescription for a patient
-Inputs : prescription id
-Output : Boolean
-Pre-Conditions : none
-Post-Conditions : none

[FR_P]Profile Functions

[FR_P_1] Create Patient Account

-Description : this function is used to create a new patient profile
-Inputs : name , gender ,nationalID,Date of birth
-Outputs : Boolean
-Pre-Conditions : nationalID is in correct format , date of birth is less than now() .
-Post-Conditions : all patients interactions will be binded to his profile by his nationalID

[FR_P_2] View All Patient Accounts

-Description : this function is used to view all patient accounts
-Inputs : none
-Outputs : JSON of patients
-Pre-Conditions : function caller is of kind : receptionist or doctor
-Post-Conditions : none

[FR_P_3] Edit Patient Accounts

-Description : this function is used to update a record from patient accounts
-Inputs : patient id
-Outputs : Boolean
-Pre-Conditions : patient exists in the database
-Post-Conditions : none

[FR_P_4] Delete Patient Account

-Description : this function is used to delete an existing patient profile
-Inputs : patient id
-Outputs : Boolean
-Pre-Conditions : patient exists in the database
-Post-Conditions : none

[FR_P_5] View Patient Account

-Description : this function is used to view an existing patient profile
-Inputs : nationalID
-Outputs : JSON of patient
-Pre-Conditions : patient exists in the database
-Post-Conditions : none

[FR_AV]Availability Functions

[FR_AV_1] Recognise Face

-Description : identify the owner of each face and try to match it with one of employees in database
-Inputs : none
-Outputs : user id and profile type
-Pre-Conditions : Module is activated
-Post-Conditions : update records

[FR_AV_2] Update Availability State

-Description : To communicate with database and update the state of Availability of the employee
-Inputs : doctor id or receptionist id
-Outputs : Boolean
-Pre-Conditions : [FR_AV_1] was called
-Post-Conditions : updates availability and generate points

[FR_AV_3] Take Attendance

-Description : When the employee's face matched for first time in the day ,his/her attendance will be marked automatically
-Inputs : doctor id or receptionist id
-Outputs : Boolean
-Pre-Conditions : [FR_AV_1] was called
-Post-Conditions : updates attendance state

[FR_EV]Evaluation Functions

[FR_EV_1] Evaluate Doctor

-Description : Uses different inputs to evaluate the doctor's overall performance based on specific criteria to be chosen later.
-Inputs : Attendance, Availability Points, doctor id
-Outputs : Evaluation Object
-Pre-Conditions : Sufficient input data and to be called only in the end of the day
-Post-Conditions : update current evaluation data for the doctor

[FR_EV_2] Evaluate Receptionist

-Description : Uses different inputs to evaluate the receptionist's overall performance based on specific criteria to be chosen later.
-Inputs : Attendance, Availability Points, receptionist id
-Outputs : Evaluation Object
-Pre-Conditions : Sufficient input data and to be called only in the end of the day
-Post-Conditions : update current evaluation data for the receptionist

[FR_EV_3] Update Overall Evaluation

-Description : Append daily evaluation of each employee and recalculate the overall evaluation of the employee for the last specified days
-Inputs : Evaluation Object, Doctor or Receptionist ID
-Outputs : Evaluation Object
-Pre-Conditions : To be called only in the end of the day
-Post-Conditions : Update overall evaluation data for the doctor or receptionist

[FR_ID]ID Recognition Functions

[FR_ID_1] Generate Data From Card

-Description : Uses algorithm to generate data from a valid ID
-Inputs : ID Picture
-Outputs : Full name , ID Number Raw Data
-Pre-Conditions : Valid ID is used
-Post-Conditions : none

[FR_ID_2] Convert Data

-Description : Converts data obtained in [FR_ID_1] to data types can be used by the backend server
-Inputs : Full name , ID Number Raw Data
-Outputs : Full name , ID Number in valid data type
-Pre-Conditions : Valid Raw Data generated
-Post-Conditions : none

[FR_ID]Cancer Detection Functions