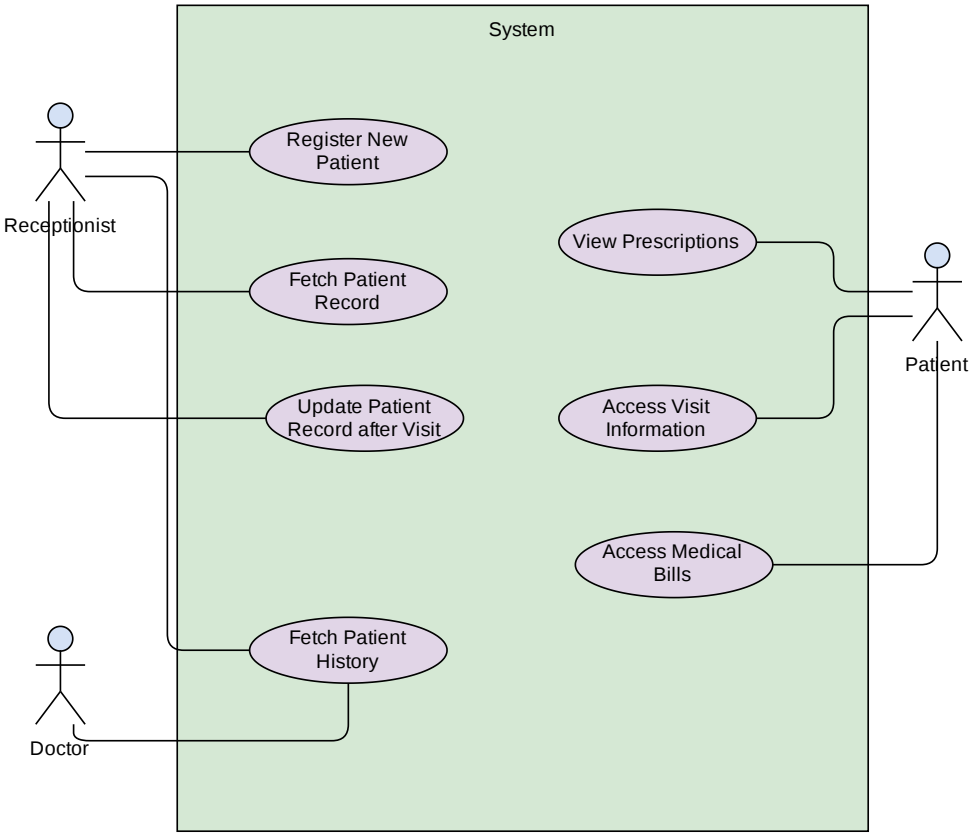
Visual Paradigm Online Express Edition



Visual Paradigm Online Express Edition

USE CASE DESCRIPTION

Use Case Id: 1

Use Case Name: Register New Patient

Use Case Description: Receptionist registers a new patient by filling out some mandatory details like name, phone number, email, address, age and gender,

Actors: Receptionist

Flows :

- **Normal Flow :**

  1) A new patient arrives.

  2) receptionist takes in his details - name, phone number, age, email and gender and clicks on register.

  3) Phone number is verified by sending an OTP to the number provided by the patient.

  4) Receptionist asks for OTP from the patient and clicks on verify OTP button.

  5) OTP is verified and a message saying ‘Patient Successfully Registered’ is shown

- **Alternative Flow :**
  No alternative flow.

- **Exception Flow:**
  1) Patient is not new. Patient already registered. Display the patient details.

  2) Missing critical fields while registering patient. Display error ‘missing fields’

  3) Registration fails due to network error. Display network error.

Use Case Id : 2

Use Case Name: Fetch Patient Record

Use Case Description: Receptionist fetches the patient record by using the patient's email or phone number.

Actors: Receptionist

Flows :

- **Normal Flow**

  1) An already registered patient arrives

  2) Receptionist clicks on the option to get record via number and asks patient for their number.

  3) Patient gives the number and receptionist enters it in the system

  4) Patient record gets displayed

- **Alternative Flow:**

  1) An already registered patient arrives.

  2) Receptionist clicks on the option to get record via email id and asks patient for email.

  3) Patient gives email and receptionist enters it in the system.

  4) Patient record gets displayed.

- **Exception Flow:**

  1) Patient is not registered. The system displays an error message saying 'patient record not registered'. The screen displays an option to register new patients.

  2) Network error while fetching the record. Display an error - 'Check your internet connection or re try in some time.

Use Case Id : 3

Use Case Name : Fetch Patient History

Use Case Description: Doctor fetches patient history with patient verification to help with better consultation.

Actors : Doctor

Flows :

- **Normal Flow :**

  1) Patient arrives to the doctors chamber.

  2) Doctor clicks on the option to get Patient history.

  3) Prompt saying ‘enter otp’ is displayed. This is to ensure secrecy and protection of medical data.

  4) Patient receives an otp on the registered mobile number and he gives it to the doctor.

  5) Doctor enters the otp and clicks on verify otp.

  6) Once the otp is verified, Patient history is displayed

- **Alternative Flow:**
  No alternative flows

- **Exception Flow:**
  1) No patient history exists. Display an error message saying ‘Patient history not available’

Use Case Id : 4

Use Case Name : Fetch Patient History

Use Case Description: Receptionist fetches patient history with patient verification on request of the doctor

Actors : Doctor

Flows :

- **Normal Flow :**

  1) Doctor requests the receptionist to send the patient history to him before the patient comes in for consultation.

  2) Receptionist clicks on the option to get Patient history.

  3) Prompt saying ‘enter otp’ is displayed. This is to ensure secrecy and protection of medical data.

  4) Patient receives an otp on the registered mobile number and he gives it to the doctor.

  5) Receptionist enters the otp and clicks on verify otp.

  6) Once the otp is verified, receptionist shares the patient history with the doctor. The receptionist cannot see the patient history due to security and privacy reasons. It can only be seen by entering the special pin which the doctor has.

- **Alternative Flow:**
  No alternative flows

- **Exception Flow:**
  1) No patient history exists. Display an error message saying ‘Patient history not available’

Use Case Id : 5

Use Case Name: Update Patient Record after visit

Actors: Receptionist

Use Case Description: After visiting the doctor, patient medical documents are uploaded to the system by the receptionist for future reference and safeguarding.

Flows

- **Normal Flow:**

1) After consultation from the doctor, patient provides the receptionist with medical documents (prescriptions, bills)

2) The receptionist clicks on the option to update patient record. She fills in all the updated information (last visit, medical documents etc) and click on update record

3) A message saying patient record updated successfully is displayed

- **Alternative Flow:** No alternative flow

- **Exception Flow:**

1) Network error while updating the record. Display an error - ‘Check your internet connection or re try in some time.

2) Receptionist forgets to enter an important medical document. On clicking update record, system prompts saying, medical document missing (eg Prescriptions missing). Data is entered again and submitted.

Use Case Id: 6

Use Case Name: View Prescriptions

Actors: Patient

Use Case Description: Patient can view prescriptions on the system to buy the prescribed medicines.

Flows :

- **Normal Flow :**
  1) Select option to filter by date

  2) Patient enters date for which he wants the prescription, and clicks on find prescriptions

  3) Prescriptions displayed.

- **Alternative Flow :**
  1) Select option to filter by doctor name.

  2) Patient enters the name of the doctor whose prescribed prescriptions he would like to see and clicks on find prescriptions.

  3) Prescriptions displayed.

- **Exception Flow:**

  1) Future date is entered. Gives a prompt saying, “cannot enter future date - try again”

  2) No records available. Displays error message saying “no records available”

Use Case Id: 7

Use Case Name: Access Visit Information

Use Case Description: Patient can access his visit information to keep track of regular visits and to know when should the next visit be made.

Actors: Patient

Flows:

- **Normal Flow :**

  1) Patient clicks on the option to display past visits

  2) Patient specifies the number of past visits he would like to see, then clicks on view.

  3) Patient gets a list of past visits and the reason for past visits.

- **Alternative Flow:**

  1) Patient click on the option to display past visits

  2) Patient clicks on display all visits.

  3) Patient gets a scrollable list of all the past visits

- **Exception Flow:**

  1) No past visit data available. Display error - ‘no past visit data available’.

Use Case Id: 8

Use Case Name: Access Medical Bills

Use Case Description: Patient can access medical bills by providing the date for which the bill is required.

Actors: Patient

Flows

- **Normal Flow**

  1) Patient clicks on the option to view medical bills.

  2) The date for which the medical bills is to be provided is filled out. Click on the icon.

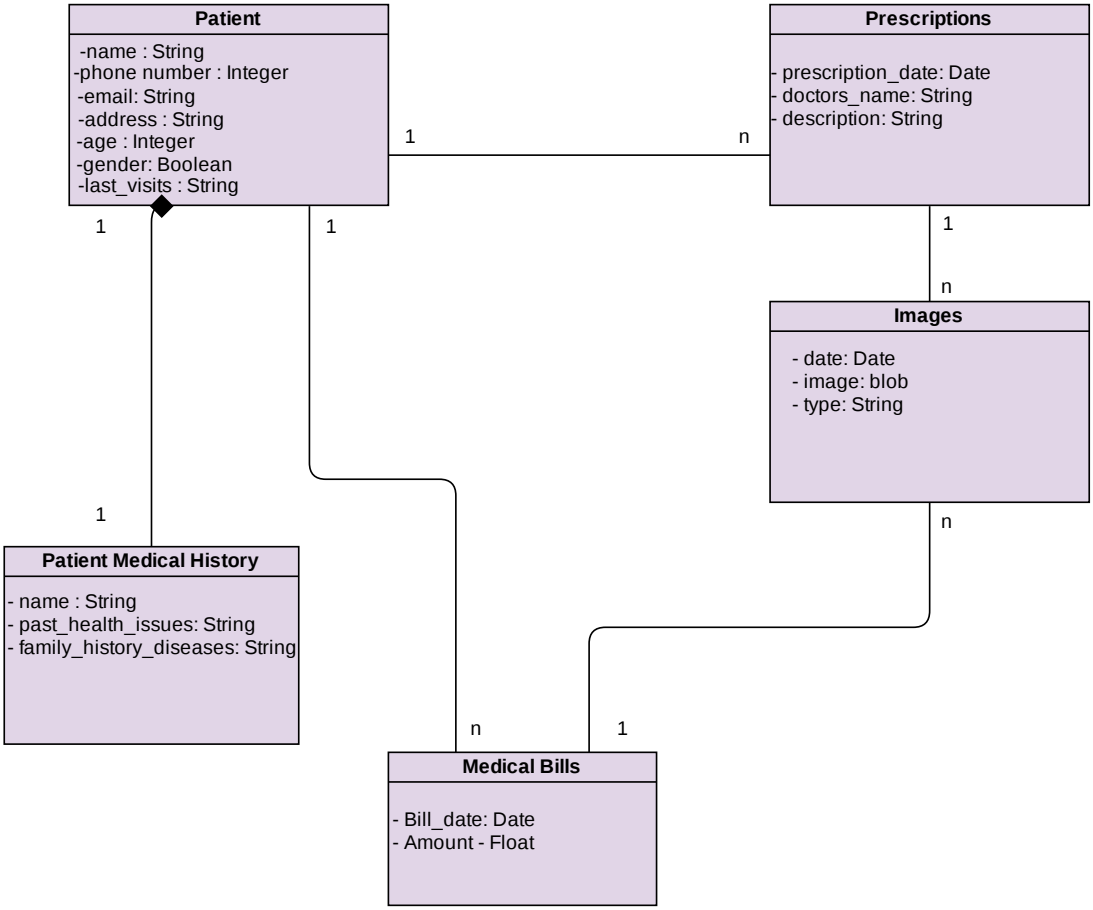
  3) All the medical bills pertaining to that particular date are displayed.

- **Alternative Flow:** No alternative flow

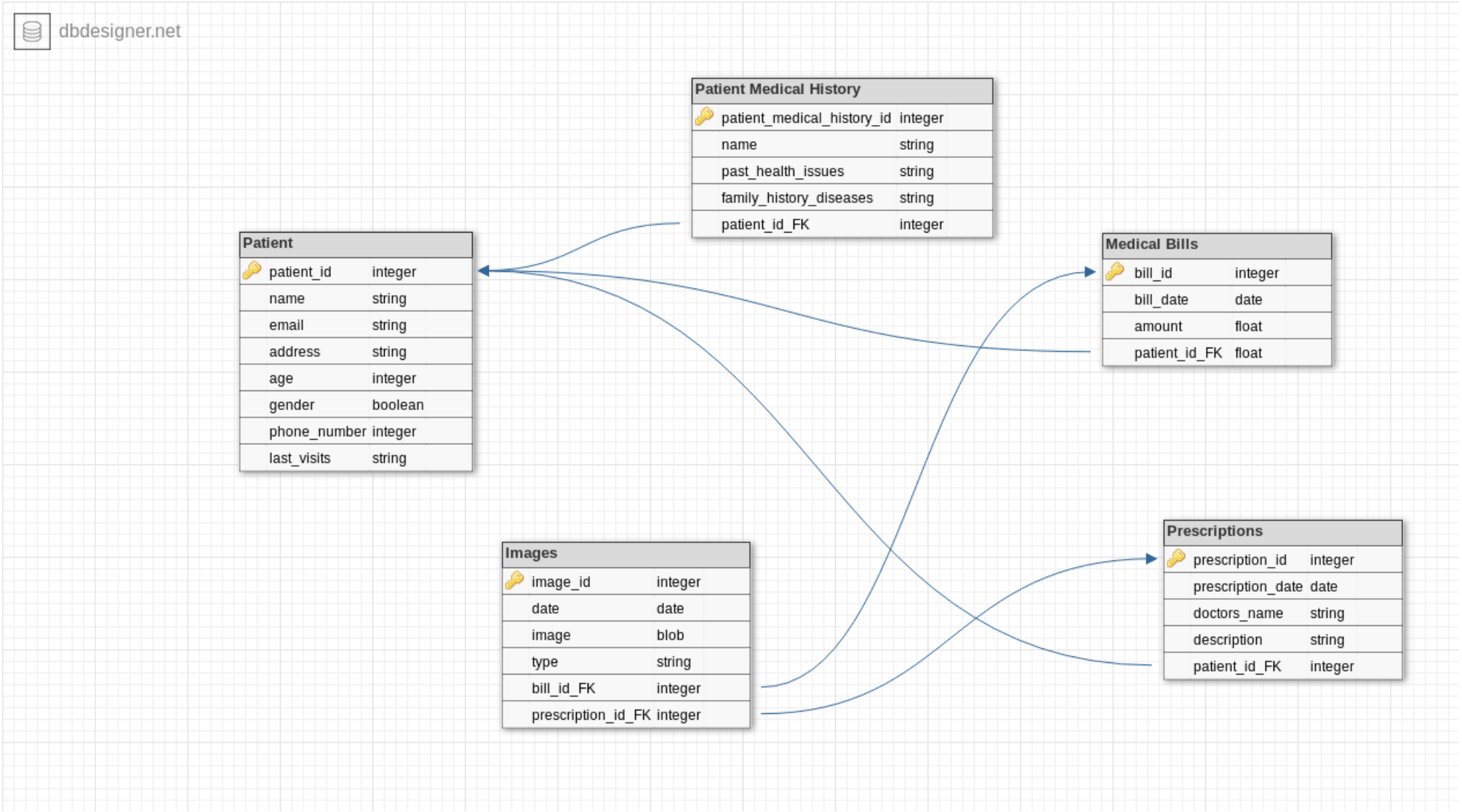
- **Exception Flow:**

  1) No medical bills available for the date entered, error message saying - ‘No bills found for this date’ gets displayed.

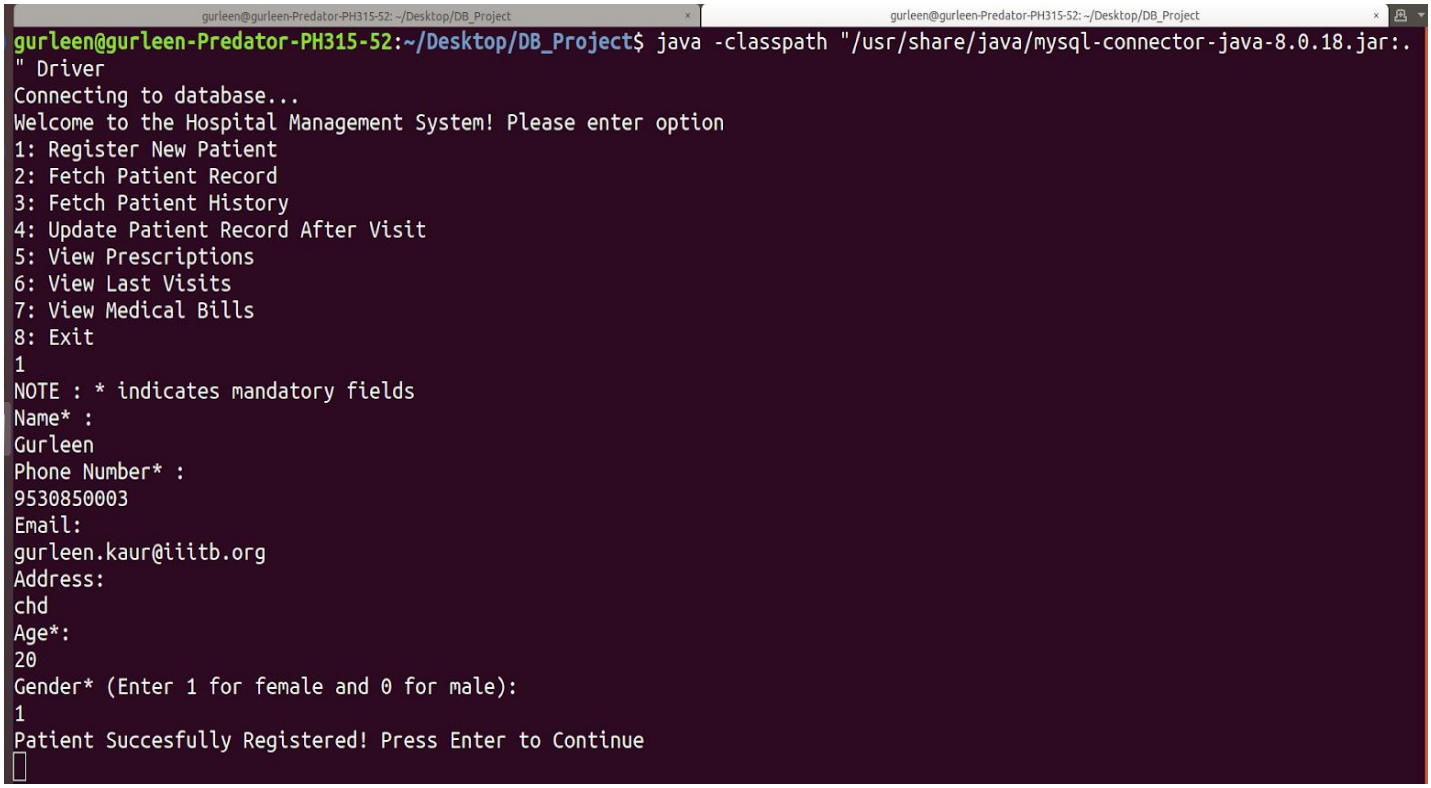
Visual Paradigm Online Diagrams Express Edition



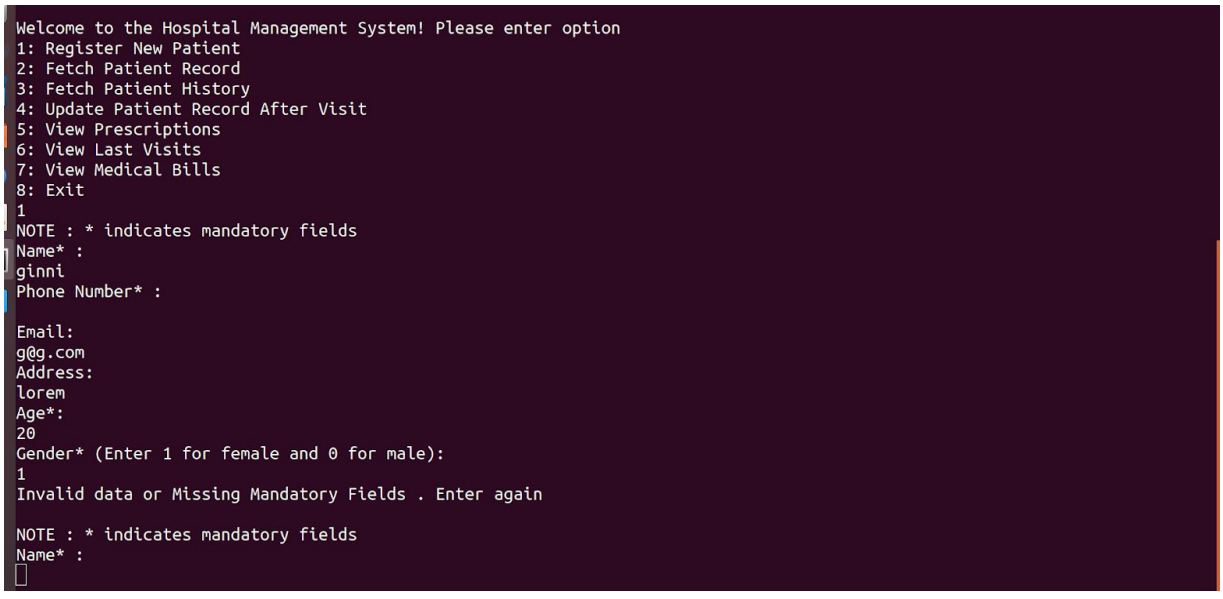
Visual Paradigm Online Diagrams Express Edition


dbdesigner.net
Patient Medical History
patient_medical_history_id integer
name string
past_health_issues string
family_history_diseases string
patient_id_FK integer
Patient
patient_id integer
name string
email string
address string
age integer
gender boolean
phone_number integer
last_visits string
Medical Bills
bill_id integer
bill_date date
amount float
patient_id_FK float
Images
image_id integer
date date
image blob
type string
bill_id_FK integer
prescription_id_FK integer
Prescriptions
prescription_id integer
prescription_date date
doctors_name string
description string
patient_id_FK integer

USE CASE 1: REGISTER NEW PATIENT



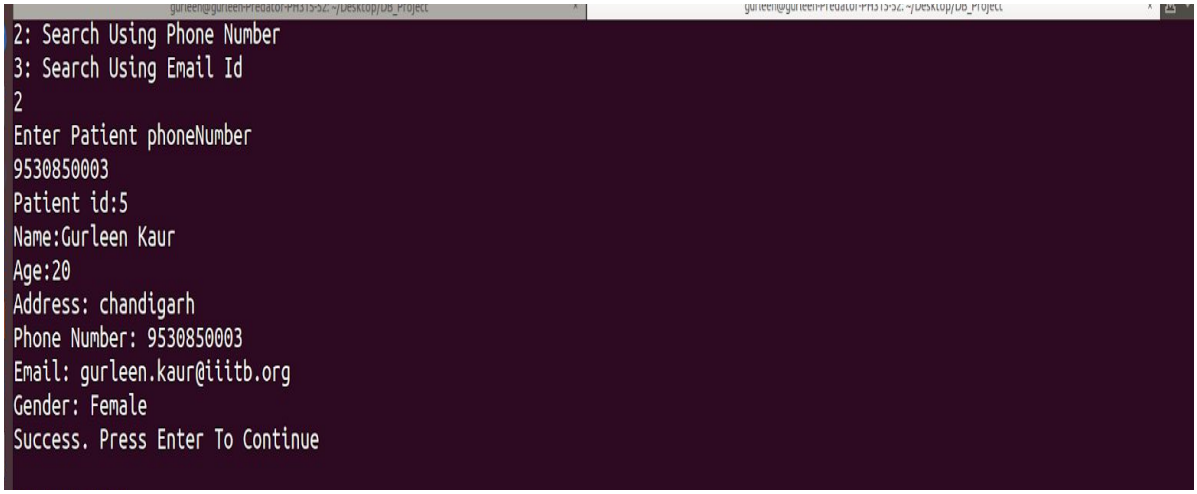
Normal flow

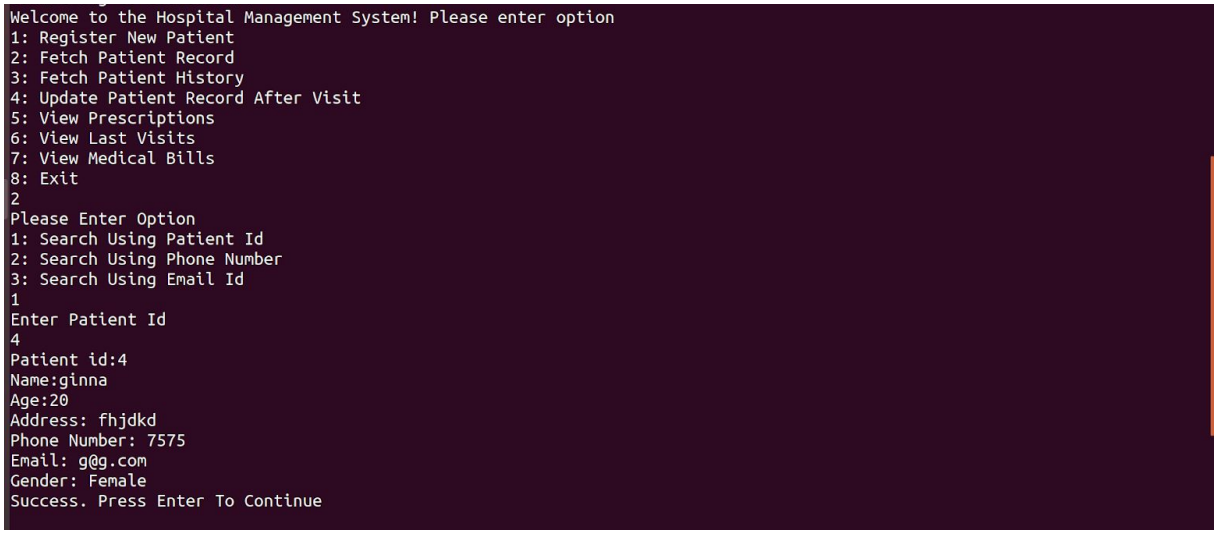


Exception Flow - Missing Mandatory Fields

USE CASE 2 : FETCH PATIENT RECORD

Normal Flow : Fetch using phone number





Alternate Flow - Search using patient id

USE CASE 3 : FETCH PATIENT HISTORY

```
gurleen@gurleen-Predator-PH315-52:~/Desktop/DB_Project$ java -classpath "/usr/share/java/mysql-connector-java-8.0.18.jar:.
" Driver
Connecting to database...
Welcome to the Hospital Management System! Please enter option
1: Register New Patient
2: Fetch Patient Record
3: Fetch Patient History
4: Update Patient Record After Visit
5: View Prescriptions
6: View Last Visits
7: View Medical Bills
8: Exit
3
Enter Patient Id
2
Patient Id: 2
Name: Meenal
Past health issues: diabetes, cancer
Family history diseases: Mother had breast cancer
```

Normal flow

```
gurleen@gurleen-Predator-PH315-52:~/Desktop/DB_Project$ java -classpath "/usr/share/java/mysql-connector-java-8.0.18.jar:.
" Driver
Connecting to database...
Welcome to the Hospital Management System! Please enter option
1: Register New Patient
2: Fetch Patient Record
3: Fetch Patient History
4: Update Patient Record After Visit
5: View Prescriptions
6: View Last Visits
7: View Medical Bills
8: Exit
3
Enter Patient Id
100
No data available.
```

Exception flow

USE CASE 4 : UPDATE PATIENT RECORD AFTER VISIT

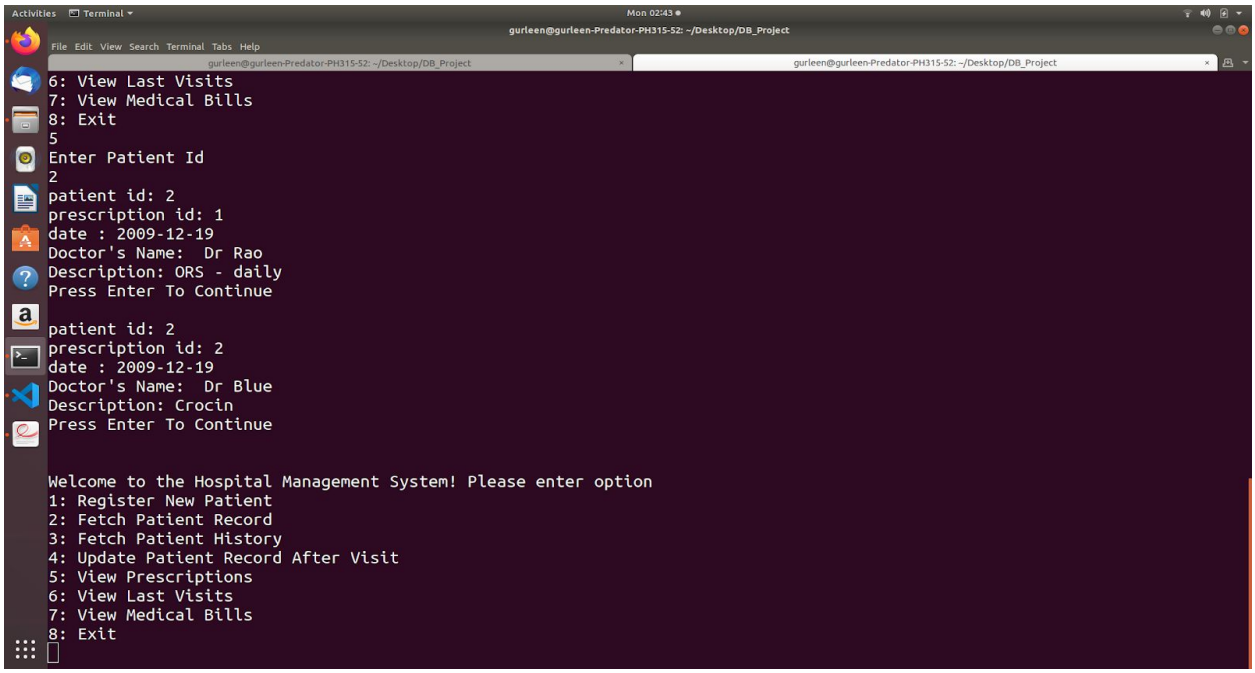
```
gurleen@gurleen-Predator-PH315-52:~/Desktop/DB_Project$ java -classpath "/usr/share/java/mysql-connector-java-8.0.18.jar:.
" Driver
Connecting to database...
Welcome to the Hospital Management System! Please enter option
1: Register New Patient
2: Fetch Patient Record
3: Fetch Patient History
4: Update Patient Record After Visit
5: View Prescriptions
6: View Last Visits
7: View Medical Bills
8: Exit
4
Enter Patient Id
2
Updating Last visits
Enter reason for visit
cough
last visits updated successfully
Uploading Prescriptions
Enter Doctor's name:
Dr Blue
Enter prescription description
Crocin
Prescriptions Uploaded
Uploading Bills
Enter Bill Amount:
3000.50
Bill Uploaded
```

NORMAL FLOW

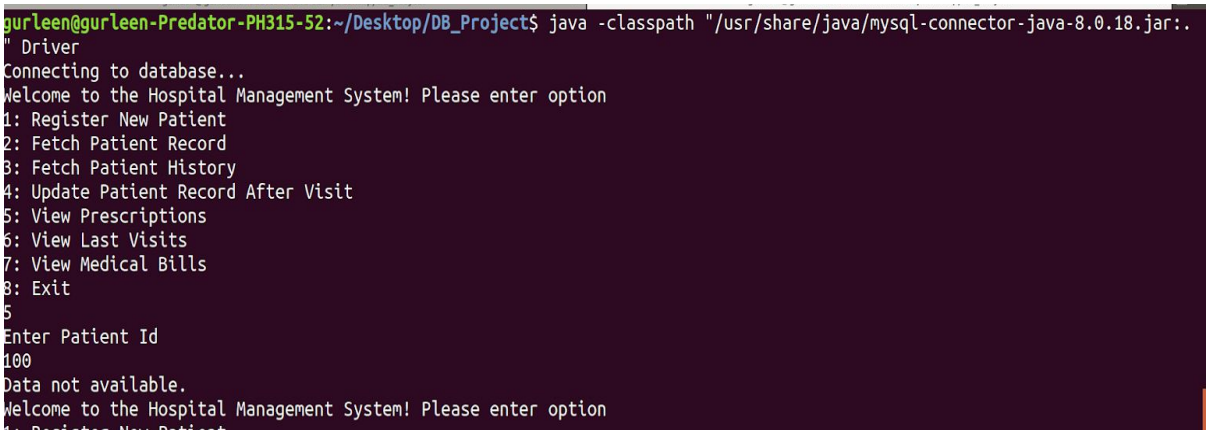
```
Connecting to database...
Welcome to the Hospital Management System! Please enter option
1: Register New Patient
2: Fetch Patient Record
3: Fetch Patient History
4: Update Patient Record After Visit
5: View Prescriptions
6: View Last Visits
7: View Medical Bills
8: Exit
4
Enter Patient Id
1000
Updating Last visits
Patient not registered.
```

EXCEPTION FLOW

USE CASE 5 : VIEW PRESCRIPTIONS

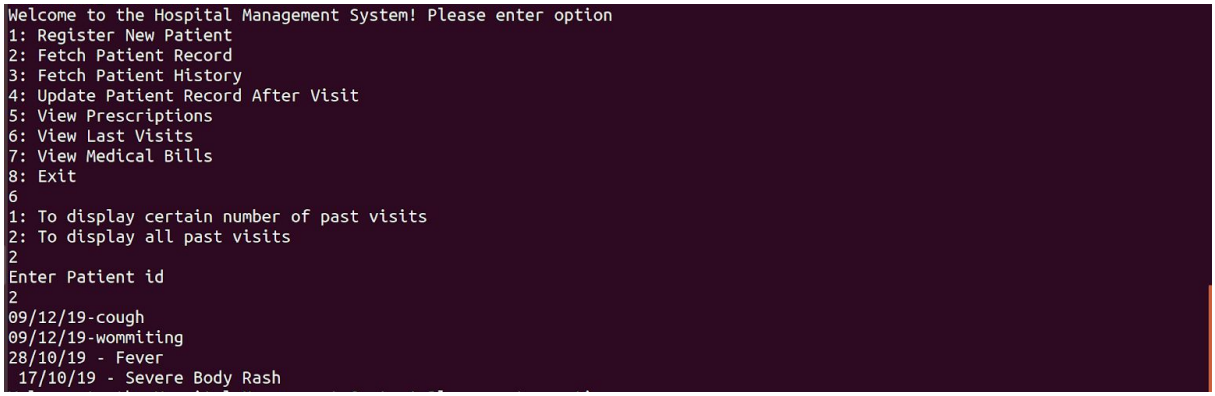


NORMAL FLOW

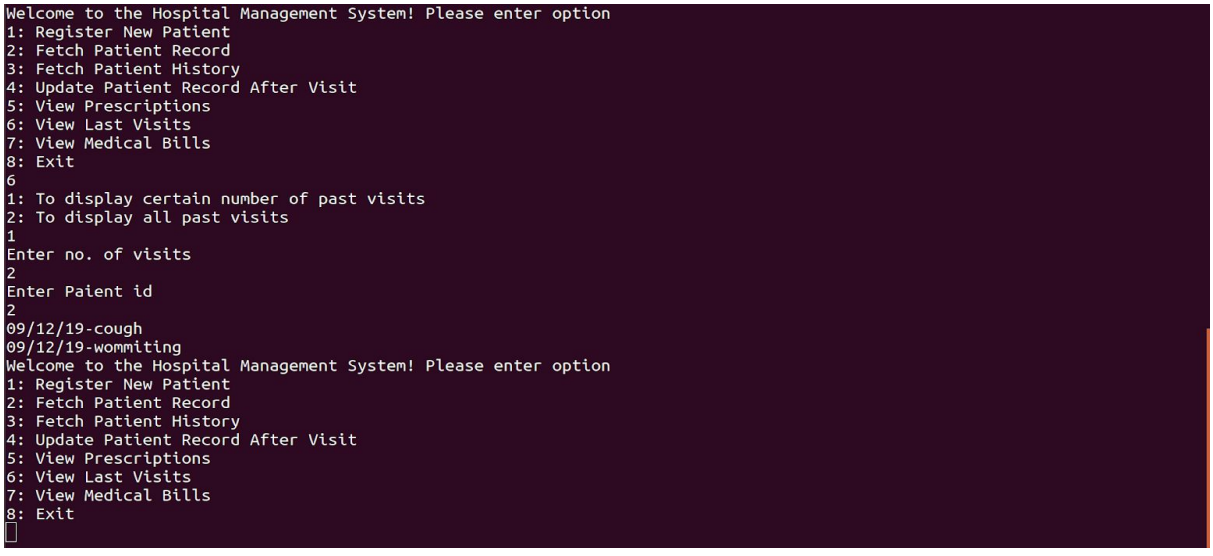


EXCEPTION FLOW

USE CASE 6 : VIEW LAST VISITS



NORMAL FLOW : show all visits



ALTERNATE FLOW : show last n visits

USE CASE 7 : VIEW MEDICAL BILLS

```
Connecting to database...
Welcome to the Hospital Management System! Please enter option
1: Register New Patient
2: Fetch Patient Record
3: Fetch Patient History
4: Update Patient Record After Visit
5: View Prescriptions
6: View Last Visits
7: View Medical Bills
8: Exit
7
Enter Patient Id
2
Patient id: 2
Bill id: 1
Bill Date: 2009-12-19
Bill Amount: 300.5
Patient id: 2
Bill id: 2
Bill Date: 2009-12-19
Bill Amount: 3000.5
Welcome to the Hospital Management System! Please enter option
1: Register New Patient
2: Fetch Patient Record
3: Fetch Patient History
4: Update Patient Record After Visit
5: View Prescriptions
6: View Last Visits
7: View Medical Bills
8: Exit
```

Normal flow

```
Welcome to the Hospital Management System! Please enter option
1: Register New Patient
2: Fetch Patient Record
3: Fetch Patient History
4: Update Patient Record After Visit
5: View Prescriptions
6: View Last Visits
7: View Medical Bills
8: Exit
7
Enter Patient Id
100
Data not available.
```

Exception flow