

# Healthcare System

## Description:

This project helps you to perform a few specific tasks related to the Healthcare Monitoring System. Using this system, a patient can check the record of his health. Similarly, a doctor can look for the records of the patients who take treatment under him. A search option to know the particular patient details.

## Tasks:

### a) Hospital , Doctor

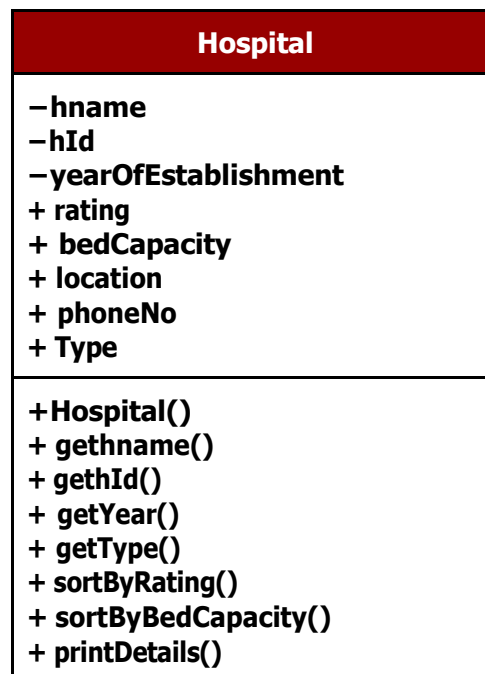
- **Generate Hospital Details:**

- **Description:**

- This will generate Hospital Details including Hospital name, ID, Ratings etc.

- **Class Diagram**

- Title represents the class name
    - Second part represents member variables
    - Third part represents the member functions
      - Use – and + symbols to represent **private** and **public** member variables / functions
  - Hospital

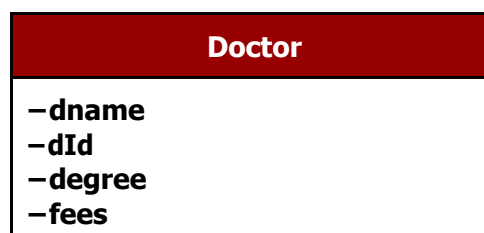


- **Hospital():**

- **Description:**

- This constructor to Hospital class will generate the basic Hospital Details including hname , location , phoneNo , ratings and bedCapacity etc.

- **gethname():**
  - **Description:**
    - This subtask will return hname i.e. hospital name.
- **gethId():**
  - **Description:**
    - This subtask will return hId i.e. hospital id.
- **getYear():**
  - **Description:**
    - This subtask will return year of establishment of the hospital.
- **getType():**
  - **Description:**
    - This subtask will return Type of the hospital (It will be decided on the basis of bed capacity of the hospital).
- **sortByRating():**
  - **Description:**
    - This subtask will sort the Hospitals as per their rating and display their details.
- **sortByBedCapacity():**
  - **Description:**
    - This subtask will sort the Hospitals as per their bed capacity and display their details.
- **printDetails():**
  - **Description:**
    - This subtask will display the Hospital details.
- **Generate Doctor Details:**
  - **Class Diagram**
    - Title represents the class name
    - Second part represents member variables
    - Third part represents the member functions
      - Use – and + symbols to represent **private** and **public** member variables / functions
  - Doctor



-contactNo +experience +specialization +appointment
+Doctor() + getId() +setExperience(int) + setContact(long int) + printDetails() + sortByexperience() + sortBySpec() + sortByFees() + searchByHname() + searchByDid() + modifyContact() +modifyExperience()

- **Doctor():**
  - **Description:**
    - This constructor to Doctor class will generate the basic Doctor Details including dname , degree , contactNo , experience , specialization ,fees etc.
- **getId():**
  - **Description:**

This subtask will return dId i.e. doctor's id.
- **setExperience(int):**
  - **Description:**

This subtask will set the experience of doctor as per the argument to the function.
- **setContact(long int):**
  - **Description:**

This subtask will set the contact no. of doctor as per the argument to the function.
- **sortByexperience():**
  - **Description:**
    - This subtask will sort the Doctors as per their experience and display their details.
- **sortBySpec():**
  - **Description:**
    - This subtask will display Doctors with same specialization together.

- **sortByFees():**
  - **Description:**
    - This subtask will sort the Doctors as per their fees and display their details.
- **printDetails() :**
  - **Description:**
    - This subtask will display Doctor's Details.

## b) Patient

- Patient

Patient
<p>           -pname            -pId            -gender            -age            -disease            -contact            -address            -status         </p>
<p>           +Patient()            + getStatus()            + getSuggestions()            + getPid()            + getAge()            + setAge(int)            + getDisease()            + getAppointment()            + searchByPid()            + sortByDisease()            + ModifyAge()            + DeleteByPid()            + DeleteByPname()            + searchByAgegroup()            + printDetails()         </p>

- **Patient() :**
  - **Description:**
    - This constructor will generate Details of Patient including pname , gender , contact , address etc.
- **getstatus() :**
  - **Description:**
    - This subtask will return health status of Patient (status will be decided on the basis of age of patient ) .

- **getSuggestions() :**
  - **Description:**
    - This subtask will return the medicine names prescribed by the doctor.
- **getPid() :**
  - **Description:**
    - This subtask will return Pid i.e. Patient Id.
- **getAge() :**
  - **Description:**
    - This subtask will return the age of Patient.
- **setAge(int) :**
  - **Description:**
    - This subtask will set the age of Patient as per the argument of the function.
- **getDisease() :**
  - **Description:**
    - This subtask will return disease a particular patient is suffering from.
- **getAppointment() :**
  - **Description:**
    - This subtask will set the appointment date of the patient.
- **printDetails() :**
  - **Description:**
    - This subtask will display Patient Details.

### **C)Search**

- **searchByPid() :**
  - **Description:**
    - This subtask will search for Patient using pId and print the Details of that patient if found.
- **searchByDid() :**
  - **Description:**
    - This subtask will search for Doctor using dId and print the Details of that Doctor if found.
- **searchByHname() :**
  - **Description:**
    - This subtask will search for Hospital using hname and print the Details of that hospital if found.

- **searchByAgegroup() :**
  - **Description:**
    - This subtask will search for patient who have age between provided age group and print the Details of that patients if found.
- **sortByDisease() :**
  - **Description:**
    - This subtask will Display Patients of same disease together.

#### **d) Remove or modify Details**

- **DeleteByPid() :**
  - **Description:**
    - This subtask will delete Patient Details using Pid i.e. Patient Id.
- **DeleteByPname() :**
  - **Description:**
    - This subtask will delete Patient Details using Pname i.e. Patient's name.
- **modifyAge() :**
  - **Description:**
    - This subtask will search for Patient using pId and modify his/her age if found.
- **modifyContact() :**
  - **Description:**
    - This subtask will search for Doctor using dId and modify his/her contact if found.
- **modifyExperience() :**
  - **Description:**
    - This subtask will search for Doctor using dId and modify his/her experience if found.

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