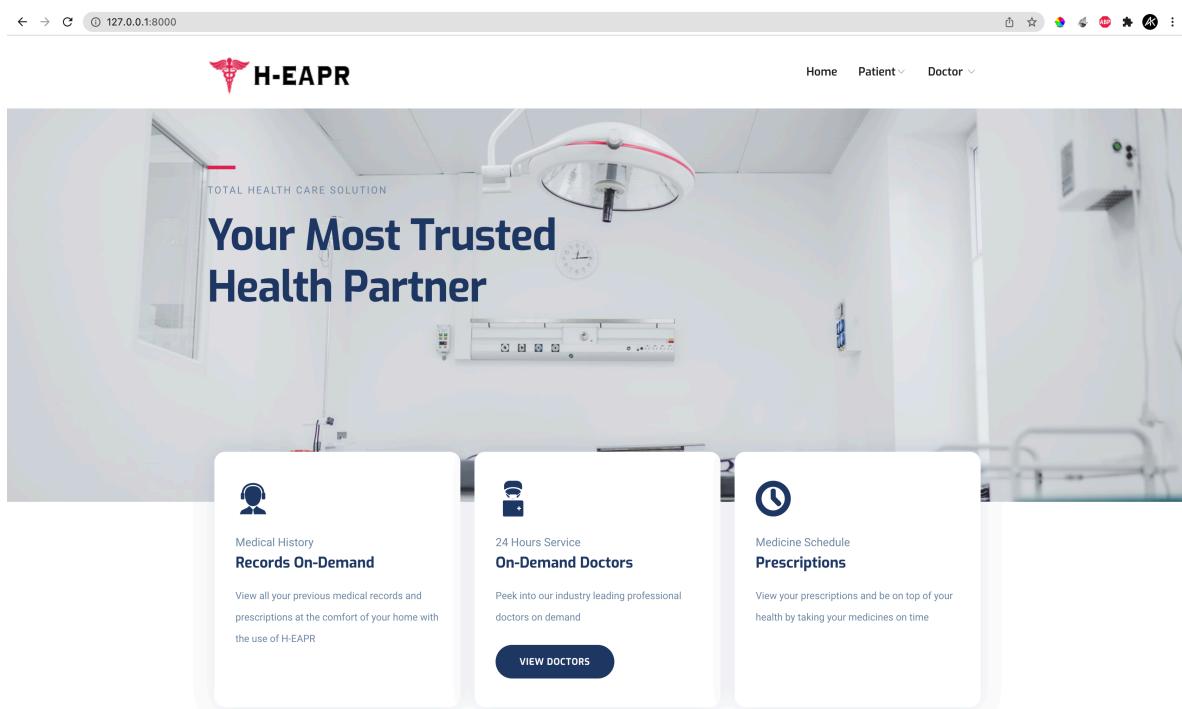


Hackfest – Easy Access Patient Record

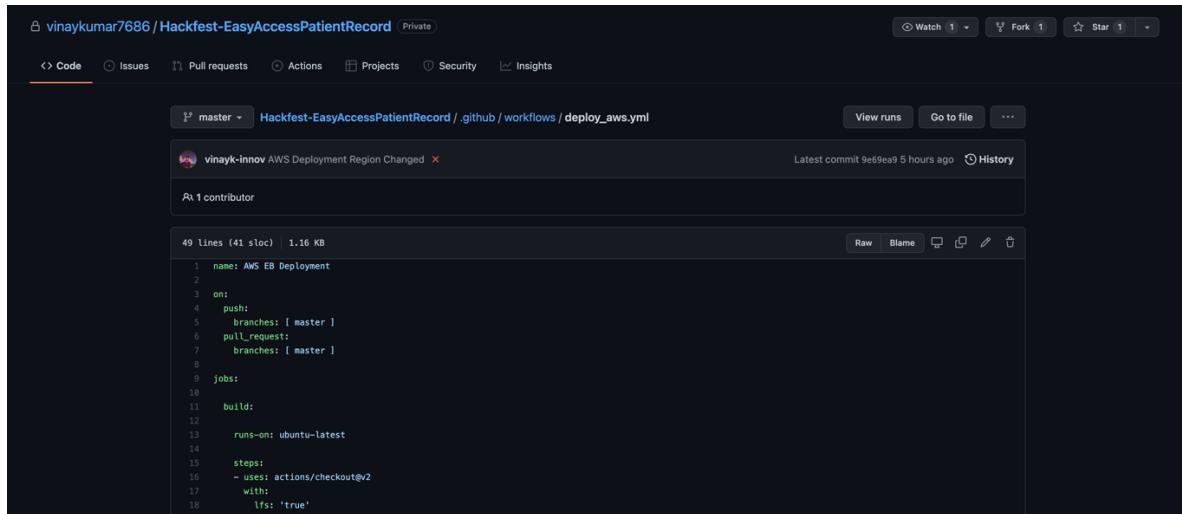
Setting H-EAPR for Local Deployment

1. Go to the Terminal, and clone the repository
 - git clone https://github.com/vinaykumar7686/Hackfest-EasyAccessPatientRecord.git
2. Assuming that Python 3.9 or up and Django 4.0.1 is installed, run
 - pip3 install -r requirements.txt
3. Migrate the database using following commands
 - python manage.py makemigrations
 - python manage.py migrate --run-syncdb
4. Create a superuser for admin panel by running
 - python manage.py createsuperuser
5. Run the server
 - python manage.py runserver
6. Then go to <http://127.0.0.1:8000> in your browser
7. After running, the server and accessing the homepage, go to admin panel to add all the medicines, their preparations and departments as they are all managed by the admin.
 - <http://127.0.0.1:8000/admin>
8. Now the application is all setup to be run locally.



Deploying H-EAPR on AWS

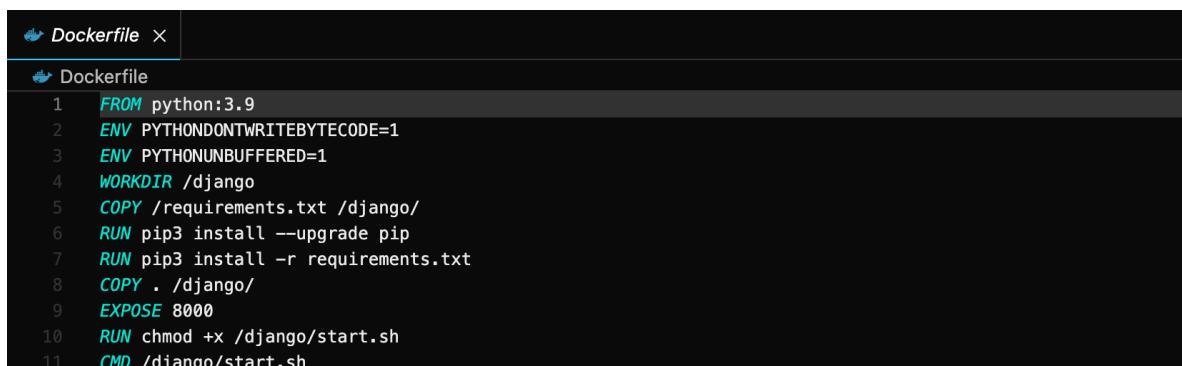
1. Create the yml file which triggers every-time a push or a pull request has been made.



A screenshot of a GitHub repository page for 'vinaykumar7686/Hackfest-EasyAccessPatientRecord'. The repository is private. The 'Code' tab is selected. A workflow file named 'deploy_aws.yml' is displayed. The file content is as follows:

```
name: AWS EB Deployment
on:
  push:
    branches: [ master ]
  pull_request:
    branches: [ master ]
jobs:
  build:
    runs-on: ubuntu-latest
    steps:
      - uses: actions/checkout@v2
        with:
          lfs: 'true'
```

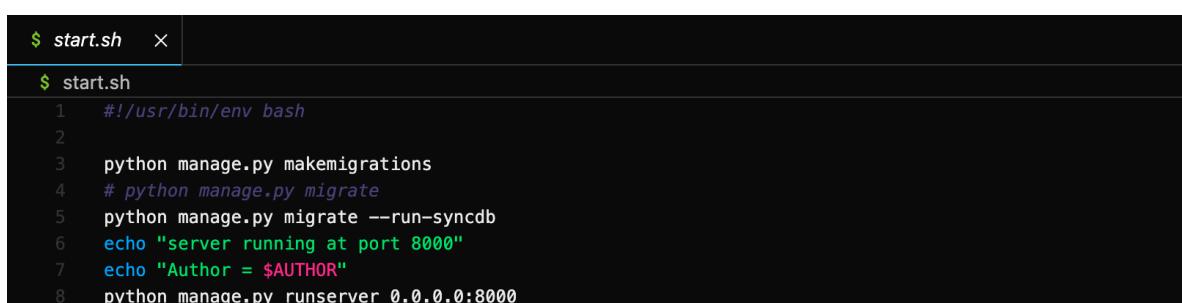
2. The yml file when executed runs the docker file.



A screenshot of a Dockerfile in a code editor. The file contains the following build steps:

```
FROM python:3.9
ENV PYTHONDONTWRITEBYTECODE=1
ENV PYTHONUNBUFFERED=1
WORKDIR /django
COPY requirements.txt /django/
RUN pip3 install --upgrade pip
RUN pip3 install -r requirements.txt
COPY . /django/
EXPOSE 8000
RUN chmod +x /django/start.sh
CMD /django/start.sh
```

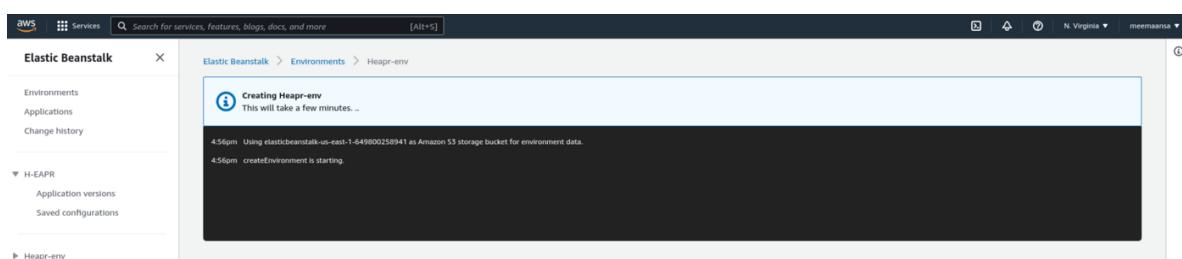
3. The docker file runs the start script



A screenshot of a terminal window showing the contents of a 'start.sh' script:

```
#!/usr/bin/env bash
python manage.py makemigrations
# python manage.py migrate
python manage.py migrate --run-syncdb
echo "server running at port 8000"
echo "Author = $AUTHOR"
python manage.py runserver 0.0.0.0:8000
```

4. On Amazon AWS Elastic Beanstalk, create a new environment by selecting web server environment tier and entering the application and environment name. Docker is selected as the platform here.



5. Create an IAM user in Amazon AWS.

The screenshot shows the 'Add user' review step in the AWS IAM console. It displays the following details:

- User name:** H-EAPR
- AWS access type:** Programmatic access and AWS Management Console access
- Console password type:** Custom
- Require password reset:** No
- Permissions boundary:** Permissions boundary is not set

Permissions summary: The following policies will be attached to the user shown above.

| Type | Name |
|----------------|---|
| Managed policy | AdministratorAccess |
| Managed policy | AdministratorAccess-AWSElasticBeanstalk |

Tags: The new user will receive the following tag.

| Key | Value |
|--------|--------|
| Python | Django |

6. Add the AWS Access Key and Secret Access Key in GitHub action secrets.

The screenshot shows the 'Actions secrets' section in the GitHub repository settings for 'vinaykumar7686/Hackfest-EasyAccessPatientRecord'. It lists two secrets:

| Secret | Last updated | Action |
|-----------------------|----------------------|---------------|
| AWS_ACCESS_KEY_ID | Updated 1 minute ago | Update Remove |
| AWS_SECRET_ACCESS_KEY | Updated now | Update Remove |

7. Wait for the build to complete.

The screenshot shows the GitHub Actions build log for the 'build' job. The log output indicates a successful deployment to Elastic Beanstalk:

```
AWS Region: us-east-1
File: deploy.zip
AWS Access Key: 20 characters long, starts with A
AWS Secret Key: 40 characters long, starts with n
Wait for deployment: true
Recovery wait time: 30
Uploading file to bucket elasticbeanstalk-us-east-1-649800258941
New build successfully uploaded to S3, bucket=elasticbeanstalk-us-east-1-649800258941, key=/H-EAPR/Heapr-app-2022-01-23T11-44-16-465Z.zip
Created new application version Heapr-app-2022-01-23T11-44-16-465Z in Beanstalk.
Starting deployment of version Heapr-app-2022-01-23T11-44-16-465Z to environment Heapr-env
Deployment started, "wait_for_deployment" was true...
11:44:19 INFO: Environment update is starting.
11:44:59 INFO: Deploying new version to instance(s).
11:45:11 INFO: Still updating, status is "Updating", health is "Green", health status is "Info"
11:45:23 INFO: Environment health has transitioned from Ok to Info. Application update in progress on 1 instance. 0 out of 1 instance completed (running for 47 seconds).
11:46:13 INFO: Still updating, status is "Updating", health is "Green", health status is "Info"
11:46:13 INFO: Instance deployment completed successfully.
11:46:50 INFO: New application version was deployed to running EC2 instances.
11:46:50 INFO: Environment update completed successfully.
Deployment finished. Version updated to Heapr-app-2022-01-23T11-44-16-465Z
Status for H-EAPR-Heapr-env is Ready, Health: Green, HealthStatus: Info
Environment update successful!
```

8. The build when successfully completed shows a green tick.

A screenshot of a GitHub Actions build log for a repository named 'Hackfest-EasyAccessPatientRecord'. The build status is 'Succeeded now in 3m 17s'. The log details the execution of various steps: Set up job (3s), Run actions/checkout@v2 (2s), Build the Docker image (33s), Generate Deployment Package (6s), Get timestamp (6s), Run string replace (6s), Deploy to EB (2m 39s), Post Run actions/checkout@v2 (6s), and Complete job (6s). A 'Re-run all jobs' button is visible at the top right.

9. The same can be seen at environment dashboard too.

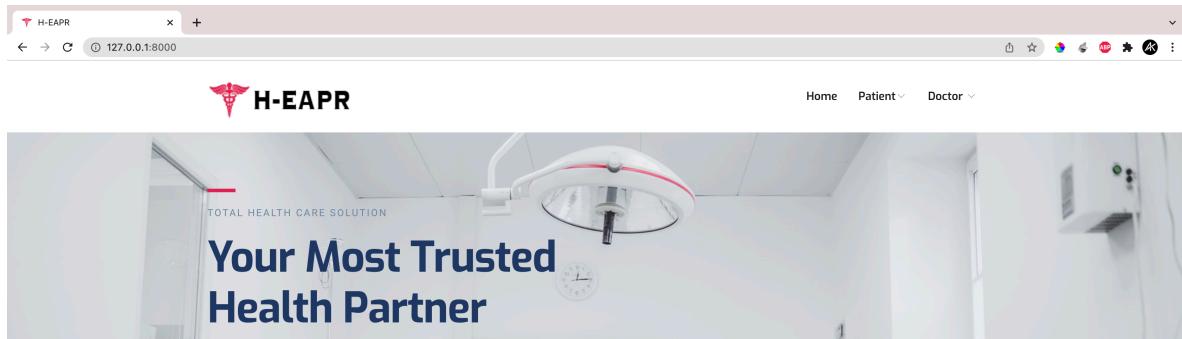
A screenshot of the AWS Elastic Beanstalk environment dashboard for 'Heapr-env'. The environment is shown as 'Ok' (green checkmark icon). The 'Running version' is 'Sample Application' with a 'Upload and deploy' button. The 'Platform' is 'docker' running on '64bit Amazon Linux 2/3.4.10'. The 'Recent events' section lists deployment logs from January 23, 2022, including the successful launch of the environment and the addition of a new instance.

10. Go to the deployment link to check if the application is running.

A screenshot of the deployed application's homepage, 'H-EAPR'. The page features a banner with the text 'Your Most Trusted Health Partner'. Below the banner are three service cards: 'Medical History Records On-Demand', '24 Hours Service On-Demand Doctors', and 'Medicine Schedule Prescriptions'. Each card includes a brief description and a 'VIEW DOCTORS' button. The URL in the browser bar is 'heapr-env.eba-zq8rhjds.us-east-1.elasticbeanstalk.com'.

Project Overview

1. **Home Page** is a page that displays some basic stats about the website and helps in welcoming the user to a universal dashboard that has direct links to various personalized sections of the website.



2. **Doctor Sign Up** is a page that is used by the doctor to register an account by entering some basic details like his name, email id, contact, selecting his department and choosing a secure password.

A screenshot of a web browser showing the H-EAPR Doctor Sign Up page. The title bar says "H-EAPR Doctor Sign Up" and "127.0.0.1:8000/doctor/register/". The page has a dark blue background with a surgeon in the background. The word "Sign Up" is prominently displayed in white. The form fields include "Name" (with placeholder "Enter Your Name"), "Email" (with placeholder "Enter Your Email"), "Phone" (with placeholder "Enter Your Phone Number"), "Department" (with "Neurology" selected), "Password" (with placeholder "Enter Your Password"), and "Confirm Password" (with placeholder "Confirm Your Password"). A "SIGN UP" button is at the bottom.

3. **Common Sign In** is a page that is used by both a doctor and a patient to log in into his account and access his information and perform various tasks available at hand. The page authenticates the login credentials and redirects the user who is either a doctor or a patient to their respective homepages depending on their account type.

A screenshot of a web browser showing the H-EAPR Common Sign In page. The page has a dark blue background with a surgeon in the background. The word "Sign In" is prominently displayed in white. The form fields include "Email ID" (with placeholder "Enter Your Email") and "Password" (with placeholder "Enter Password"). A "SIGN IN" button is at the bottom.

4. **Doctor Home Page** serves as a dashboard to the doctor where he has options to perform a bunch of tasks like viewing all the patients, the list of available medicines that are registered on the platform, his personal profile as well as an option to go ahead and prescribe his patient.

The screenshot shows a web browser window titled "H-EAPR Doctor Homepage". The URL is "127.0.0.1:8000/doctor/". The page features a dark blue header with the "H-EAPR" logo and a red caduceus icon. The word "Doctor" is prominently displayed in white. Below the header is a large, dark blue banner with a faint background image of a medical professional. The main content area is titled "Your Dashboard" and contains four dark blue buttons with white text: "ALL REGISTERED PATIENTS", "ALL MEDICINES", "MY PROFILE", and "PRESCRIBE A PATIENT". There is a large, empty light gray rectangular area below these buttons, likely a placeholder for dynamic content.

5. **All Registered Patients** page is used by a doctor to see a list of all the patients who have registered themselves on the platform. There are further options available to a doctor to view the patient's full profile including his prescription history in details as well as an option to prescribe him if the need be.

The screenshot shows a web browser window titled "Homepage-All Patients". The URL is "127.0.0.1:8000/allpatients/". The page has a dark blue header with a red caduceus icon and the word "Patients" in white. Below the header is a dark blue banner with a faint background image of a medical professional. The main content area features a search bar with the placeholder "Search here..." and a "SEARCH" button. Below the search bar is a stylized icon of a doctor with arms crossed. To the right of the icon is a patient profile card for "Aditya Kumar" with the email "patient@email.com" and phone number "9597191780". The profile card includes two dark blue buttons: "VIEW FULL PROFILE" and "PRESCRIBE". Below the profile card is a small, light gray footer section.

6. **Patient's Profile** page is a page that displays all the basic as well as any medical information and the prescription history of a patient in one single page. The basic details of the patient include his name, contact, addresses and any medical history, while his medical information includes his height, weight, allergic conditions and more. The prescription history shows all the list of prescriptions he may have received on the platform from various doctors and if the need be, there is an option to take a detailed look at individual prescriptions by clicking on the View button below each prescription.

The screenshot shows the 'Patient' section of the H-EAPR interface. At the top, there is a navigation bar with the logo 'H-EAPR', a search bar, and user information 'Home Aditya Kumar'. Below the header is a large dark blue banner with the word 'Patient' in white. The main content area is divided into two sections: 'Details' on the left and 'Medical Info' on the right. The 'Details' section contains patient information such as Unique ID (1), Name (Aditya Kumar), Gender (Male), Date of Birth (Jan. 14, 2022), Contact (9597191780), Email (patient@email.com), Relative Name (Patient rel), Relative Contact (9597191780), and Address (BMP 35, 2nd Cross, KG Colony, GM Palaya). The 'Medical Info' section lists physical and health status details: Height (2 ft), Weight (20.00 kg), Blood Type (A+), Allergy (None), Alzheimer (False), Asthma (True), and Diabetes (False).

7. **Add Prescription** page is used by a doctor to prescribe a patient. The doctor has to select some basic details like date of visit, reason for visit, remarks on the patient's health and more. The doctor is also given an option to add multiple medicines by clicking on Add Medicine button. For every medicine, the doctor needs to detail the dosage data and the duration of intake for the same.

The screenshot shows the 'Prescribe a Patient' section of the H-EAPR interface. At the top, there is a navigation bar with the logo 'H-EAPR', a search bar, and user information 'Home Aditya Kumar'. Below the header is a large dark blue banner with the word 'Doctor' in white. The main content area is titled 'Prescribe a Patient'. It features several input fields: 'Date' (dd/mm/yyyy), 'Next Visit' (dd/mm/yyyy), 'Reason' (Enter the reason for visiting), 'Doctor Notes' (Enter a note for future referencing), 'Patient' (Aditya Kumar), and 'Doctor' (Vinay Kumar). There is also a 'Prescription' button at the bottom.

| | | | |
|---------|-------------------------------|------------|------------|
| Date | dd/mm/yyyy | Next Visit | dd/mm/yyyy |
| Reason | Enter the reason for visiting | | |
| Patient | Aditya Kumar | | |
| Doctor | Vinay Kumar | | |

8. **View all Medicine** page helps doctor take a look at all the registered medicines on the platform. There is also an option to look into the details like composition of individual medicines.

The screenshot shows a web browser window titled "H-EAPR All Medicines". The URL in the address bar is "127.0.0.1:8000/allmedicines/". The page features a dark blue header with the "H-EAPR" logo. Below the header is a large banner with the text "All Medicines" overlaid on a background image of various pills. A search bar with the placeholder "Search here ..." and a red "SEARCH" button are located below the banner. The main content area displays a table with three rows of medicine information:

| Medicine Price : | Rs 20.00 |
|-------------------------|----------|
| Medicine Brand : | Cipla |
| Medicine Side Effects : | None |

9. **Doctor's Profile** page shows the doctor his basic information like his name, email, contact and more. The page also consists of each and every prescription that a particular doctor has ever made and there's always an option to look for any of these prescription in full detail by clicking on the view button at the bottom of each one of them.

The screenshot shows a web browser window titled "H-EAPR Doctor Information". The URL in the address bar is "127.0.0.1:8000/doctor/info". The page features a dark blue header with the "H-EAPR" logo. Below the header is a large banner with the text "Doctor" overlaid on a background image of a doctor wearing a mask. The main content area displays a table with three rows of doctor information:

| Unique ID : | 1 |
|--------------|--------------|
| Name : | Aditya Kumar |
| Department : | Neurology |

My Personal Info

| | |
|--------------|------------------|
| Unique ID : | 1 |
| Name : | Aditya Kumar |
| Department : | Neurology |
| Contact : | 9597191780 |
| Email : | aditya@gmail.com |

My Patient's Prescription History

10. Patient Sign Up page is used by a patient to register his account on the platform. In order to do so, the patient has to first enter his basic details like his name, contact, address, any medical history and more and choose a password for authentication. Then he moves on to enter medical information like his height weight, any prevailing allergic conditions and more.

H-EAPR Patient Sign Up

Home Patient Doctor

Patient Sign Up

| | |
|----------------------------|------------------------------------|
| Name | Phone |
| Enter Your Name | Enter Your Phone Number |
| Relative Name | Relative Phone |
| Enter Your Relative's Name | Enter Your Relative's Phone Number |
| Gender | Date of Birth |
| Male | dd/mm/yyyy |
| Email | Address |
| Enter Your Email | Enter Your Address |
| Ailments | |

11. Patient Home page is like a health dashboard for the patient. Once he is directed to this page, he has the options in form of buttons to either view his profile or all the doctors registered on the platform.

H-EAPR Patient Homepage

Home Aditya Kumar

Patient

Your Health Dashboard

ALL REGISTERED DOCTORS

MY MEDICAL PROFILE

- 12. All Registered Doctor** page is used by the patient to view the list of all the registered doctors on the platform. The basic info of a doctor like his name, contact and email are also provided for further reference.

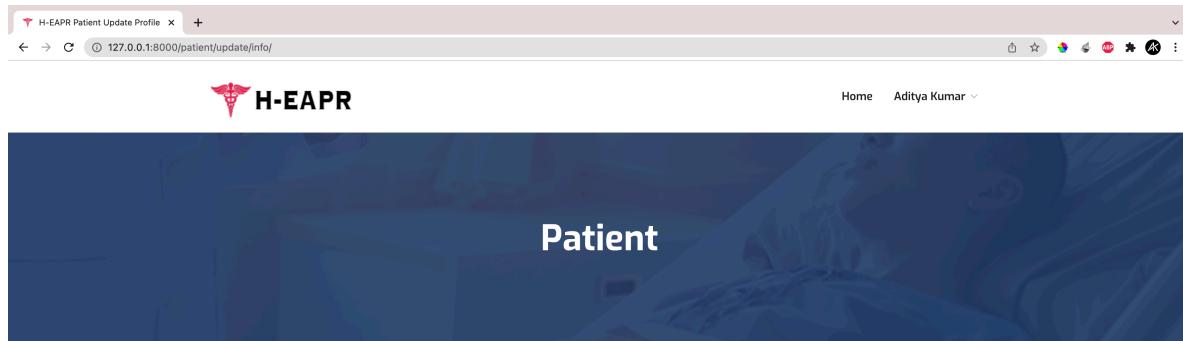
The screenshot shows a web browser window titled "H-EAPR Doctor-Homepage". The URL is "127.0.0.1:8000/alldoctors/". The main heading is "All Doctors". Below it is a sub-headline: "We provide a wide range of doctors specialised in a host of departments because you deserve only the best.". A search bar with placeholder text "Search here ..." and a red "SEARCH" button are present. To the left is a stylized doctor icon. On the right, there is a profile card for "Aditya Kumar" with the email "doctor@email.com" and the phone number "9597191780".

- 13. Patient's Profile** page is a page that displays all the basic as well as any medical information and the prescription history of a patient in one single page. The basic details of the patient include his name, contact, addresses and any medical history, while his medical information includes his height, weight, allergic conditions and more. The prescription history shows all the list of prescriptions he may have received on the platform from various doctors and if the need be, there is an option to take a detailed look at individual prescriptions by clicking on the View button below each prescription.

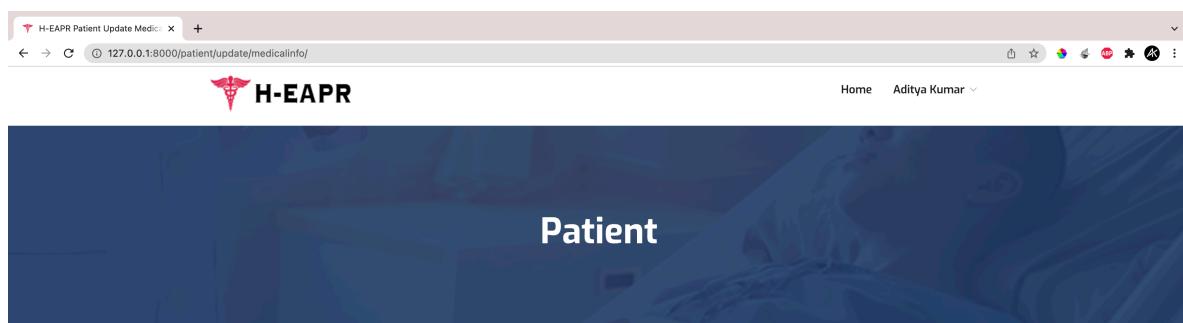
The screenshot shows a web browser window titled "H-EAPR Patient Information". The URL is "127.0.0.1:8000/patient/info/". The top navigation bar includes the H-EAPR logo, a search bar, and user information "Home Aditya Kumar". The main heading is "Patient". Below it is a large, dark blue profile image of a person. At the bottom, there are two sections: "Details" and "Medical Info".

| Details | | Medical Info | |
|--------------------|---|--------------|----------|
| Unique ID : | 1 | Height | 2 ft |
| Name : | Aditya Kumar | Weight | 20.00 kg |
| Gender : | Male | Blood Type | A+ |
| Date of Birth : | Jan. 14, 2022 | Allergy | None |
| Contact : | 9597191780 | Alzheimer | False |
| Email : | patient@email.com | Asthama | True |
| Relative Name : | Patient rel | Diabetes | False |
| Relative Contact : | 9597191780 | | |
| Address : | BMP 35, 2nd Cross, KG Colony, GM Palaya | | |

14. Update Profile page is used by a patient to update any of his basic information details including his phone, email or address as well. This page comes in handy to patients in-case they entered wrong information while registering their profile on the platform.



15. Update Medical Information page is used by a patient to update his medical information like his height, weight, allergic conditions and more.



16. Admin Panel of Django Administration is used to enter any pre required information like medicines, their preparations and various departments for doctors into the database.

17. The application is responsive and mobile friendly, so one can take control of their health into their own hands now.

