Backend_Take_Home_Assessment

Please include your answers in a Github repo, ***but replacing all instances of the word*** `bowtie` ***by*** `necktie`. This is to avoid other candidates from searching for model answers on the internet.

You are going to build an API server to expose a **Doctor List API** for our front-end application to present the information to customers.

Required dependencies

- Python 3.6+

We are open-minded and welcome any technology that is the best fit for the job. This is how it would be when you join us, so this is how it would be for this take-home assessment (we are only requiring Python). In the README file, **please justify your choice of library & framewor**k (i.e., why this framework is the best fit for the task?)

Deliverables

Your Github repo should contain the whole project with the doctor list application and basic server settings. Make sure the local server can be spun up without any errors. (You don't need to commit the local database `.sqlite` to the repo)

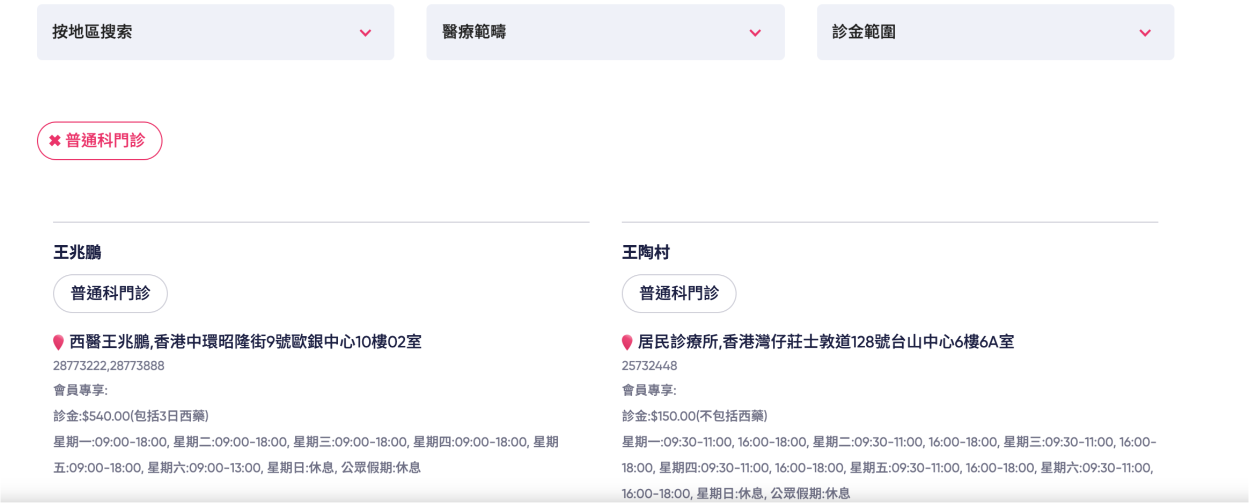
The project should include the following components. (You may have other helper functions/modules if they help)

Mandatory Deliverables (4):

1. Model

Design the model to store the doctor's information in the database. The sample UI is attached below. (The UI is for reference only and you don't need to build the front-end for this assessment.) You are free to design any schema that fits the expected outcome.

Tips: very likely you will need to create 2 or more models and make use of database relationships (e.g. one-to-one, many-to-one, etc.).



王兆鵬

普通科門診

西醫王兆鵬,香港中環昭隆街9號歐銀中心10樓02室

28773222,28773888

會員專享:

診金:$540.00(包括3日西藥)

星期一:09:00-18:00, 星期二:09:00-18:00, 星期三:09:00-18:00, 星期四:09:00-18:00, 星期五:09:00-18:00, 星期六:09:00-13:00, 星期日:休息, 公眾假期:休息

王陶村

普通科門診

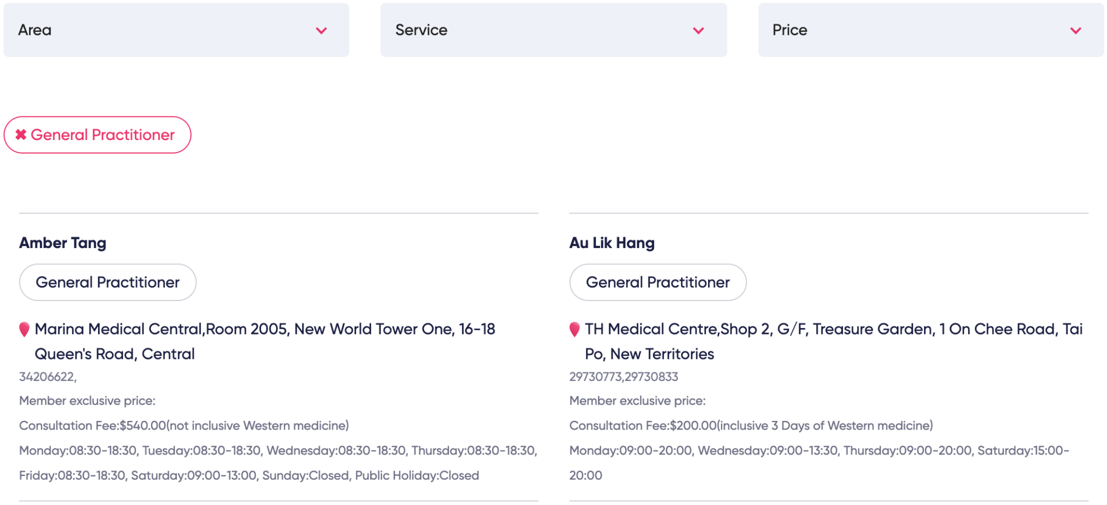
居民診療所,香港灣仔莊士敦道128號台山中心6樓6A室

25732448

會員專享:

診金:$150.00(不包括西藥)

星期一:09:30-11:00, 16:00-18:00, 星期二:09:30-11:00, 16:00-18:00, 星期三:09:30-11:00, 16:00-18:00, 星期四:09:30-11:00, 16:00-18:00, 星期五:09:30-11:00, 16:00-18:00, 星期六:09:30-11:00, 16:00-18:00, 星期日:休息, 公眾假期:休息



Amber Tang

General Practitioner

Marina Medical Central,Room 2005, New World Tower One, 16-18 Queen's Road, Central

34206622,

Member exclusive price:

Consultation Fee:$540.00(not inclusive Western medicine)

Monday:08:30-18:30, Tuesday:08:30-18:30, Wednesday:08:30-18:30, Thursday:08:30-18:30, Friday:08:30-18:30, Saturday:09:00-13:00, Sunday:Closed, Public Holiday:Closed

Au Lik Hang

General Practitioner

TH Medical Centre,Shop 2, G/F, Treasure Garden, 1 On Chee Road, Tai Po, New Territories

29730773,29730833

Member exclusive price:

Consultation Fee:$200.00(inclusive 3 Days of Western medicine)

Monday:09:00-20:00, Wednesday:09:00-13:30, Thursday:09:00-20:00, Saturday:15:00-20:00

2. API

1. Expose two APIs for the frontend to consume:
    - `https://<domain>/doctor`
        - The list view to list all the doctors in the database
        - It is also able to take optional query strings to filter the records by the following dimensions
            - District
            - Category
            - Price range
            - Language
    - `https://<domain>/doctor/:id`
        - The detailed view to retrieve one doctor given the ID
2. Add an endpoint to create a doctor

3. Testing

- Please add unit, component, or integration tests that are necessary

4. README

1. **Choice of Framework & Library:** Please explain why you choose the particular framework or library.
    a. What are the benefits & drawbacks associated with that choice?
    b. What are the assumptions underlying that choice?
2. **Potential Improvement:** Please elaborate on what kind of improvements you would like to implement if you have given more time.
3. **Production consideration:** Any extra steps should be taken with caution when deploying your app to a production environment?
4. **Assumptions**

    a. Any assumptions you have made when you designed the data model and API schema?
    b. Any other assumptions and opinions you have taken throughout the assessments?

Bonus Points:

You DON'T need to do the following, but it would be a bonus point if you can complete them.

1. To bulk create doctors
2. Data models and APIs that can support multi-language

> 💡 *We recommend spending no more than 8 hours on the assignment. So, if you have spent over 8 hours on this already, please skip this bonus part*

Rubric

These are the areas that we will be looking at:

1. Design of the data models
2. API design and schema
3. Testing
4. Quality of the README