**Meeting Time:** 9:00 am – 10:00 am 2022.11.14

**Attendees:** Xia Jiang, Zhen Yang

**Meeting agenda**

1. Reviewed progress made in the past week.
2. Showed AWS account
3. Made plans and suggestions as to how to proceed with the work.
4. Provided more relevant information to help:
5. An example pipeline.

/Users/xij6/Documents/Research/git/XiaJiang-2Github/ProjectW81XWH1900495-iMedbot/docs/InformationProvidedForDevelopment/bitbucket-pipelines.yml

1. The manuscript preprint submitted.
2. The meaning of the predictors: /Users/xij6/Documents/Research/git/XiaJiang-2Github/ProjectW81XWH1900495-iMedbot/docs/InformationProvidedForDevelopment/cancers-1509124\_R1\_v1\_XJEdits.docx
3. The meaningful values of the predictors.
4. Will plan a meeting with Chuhan to answer questions.
5. Will establish an testing/development branch for the new (no fee service) deployment scheme that should be developed.
6. AWS account access information.
7. Work assignment.

**Issues/Questions and Comments**

**Ongoing tasks that cover more than a week**

Revise and Improve IMedBot

Tasks will include but are not limited to the following:

1. Revised the current version. Many things, and I will write about them in the specific task for the coming week.
2. Resolve the “deployment” crisis. Currently, we all work on the main branch. When we make a change and push to github, it will trigger an automatic deployment on the AWS site, in which case AWS will charge us. Another problem is when there is a crash in the development work, the main branch will also be affected. Potential solutions: 1. Look into writing our own deploy pipeline without using the paid service (Conder doing this eventually perhaps next year, when you get really familiar with the system). 2. Looking into established a developmental branch, which will not be deployed automatically, but with which we can do development and testing work and conveniently merge it to the main branch for deployment once the new features are confirmed.
3. We will incorporate google analytics to the iMedBot.
4. We will develop a user online survey for the model training service. We currently have a simple online survey for the prediction service, but we don’t have one developed for the model training service call. We plan to further enhance the current survey and develop a new one that is tailored to the model training service
5. We will develop a user registration system that is currently missing;
6. We will develop a backend database during the expansion project. The iMedBot currently does not have a backend storage which can be used to store proper information such as user registration information and user feedback collected via online survey results. The information stored in such a database can be very useful to further improve the quality of the serviced provided by the iMedBot;
7. We will develop an online user manual during the expansion award;
8. We will develop online videos for further user guidance;
9. We will develop a Trello board that would be connected to our current github repository for iMedBot. The Trello board will further promote user-developer interactions and encourage the user involvement in the development work such as testing and providing feedback in real time. It will automatically update the users with the newest development of the iMedBot and inform the developers the user feedback.

**Specific tasks for the coming week**

1. Get familiar with the current iMedbot and its system, from all aspect including the AWS site (using the account information provided and the manuscript we submitted as starting resources).
2. In terms of the prediction service, change the user input prompt to meaningful words.
3. Add tool tips to explain the meaning of the input feature (predictor).
4. Add 10 year and 15 year.
5. Looking into established a developmental branch, which will not be deployed automatically, but with which we can do development and testing work and conveniently merge it to the main branch for deployment once the new features are confirmed. Use the example deployment pipeline Jiang provided and internet resources as a starting point.
6. Prepare questions for the meeting with Chuhan.

**Status of tasks from the previous week**

1. Get familiar with the current iMedbot and its system. Done
2. In terms of the prediction service, change the user input prompt to meaningful words. Looked into this but did not finish because more information needed.
3. Add tool tips to explain the meaning of the input feature (predictor). Looked into this but did not finish because more information needed.
4. Add 10 year and 15 year. Not done need better understanding of the current system, both prediction service and training service.
5. Looking into established a developmental branch, which will not be deployed automatically, but with which we can do development and testing work and conveniently merge it to the main branch for deployment once the new features are confirmed. Not done need better understanding of the current system, both prediction service and training service.

**Self report progress**

Zhen Yang weekly report 11.21

1.All recent work is done in the new branch imedbot-dev.

2.As for the tool tips and user input,

1)Fix the problem that the conversation will pause after choosing the tumor size.

2)Attach some explanation for each of the input feature for users to understand what it means.

3)find that discrete-to-digital map is different between years, so I write two separate versions for 5 and 10 years. Also I modify some front-end javascript code to adjust the value related to each pattern according to input treatment years.

3.As for the model of 5 and 10 years,

Create model according to the hyperparameters of best model of 5 and 10 years and fit the models using dataset alpha240.

Table

Description automatically generated

Save the model and add it to imdebot-dev branch. After testing the models they are added to backend coding part.

4.make some improvement for human-computer information like deleting useless tip icons.

Future work thoughts from me:

1. as the project expands and assignments get harder, more modules will be added such as python package, analytics tools and database, environment of aws may need changing. I should pay attention to it when merging.
2. I think more questions of the bot will be added so previous requirements should be meted and checked regularly.
3. 5,10 and 15 years models have more input dimensions than 5, which means some of features use default values. Maybe some more questions need to be added to the bot such as demography features of users or other medical information related to breast cancer.
4. 4. fix the problem that training part didn’t work after last meeting.
5. Models may need to be updated according to the progress.
6. I need to pay more attention to human-computer interaction, not limited to problems listed in last meeting.
7. I should improve the efficiency of contacting cause I waste some time in succeeding in creating the models for 5 and 10 years.

**Less urgent tasks**