**Skills and Resources Audit**

1. **Project overview**

The object is to develop a database/central repository to house data collected and allow it to be accessible by others. The final product will be a user-friendly web-based application with many required features.

1. **Skills and resources required for all team members**

***Agile Web development***: Lecture slides provided in MS Teams group chat for team members who hasn’t passed CITS3403

***Python***: All team members possess the ability to code it python

***GitHub***:

1. <https://journals.plos.org/ploscompbiol/article?id=10.1371/journal.pcbi.1004668> for introduction of version control using Git and GitHub
2. <https://www.youtube.com/watch?v=DVRQoVRzMIY> for basic skills to use GitHub for version control
3. <https://echo360.net.au/lesson/G_7dc833fb-32c8-41cd-bc47-7c09df50e57f_6f88a66e-7802-455c-bc7c-baea711f47fe_2022-08-10T12:58:00.000_2022-08-10T13:52:00.000/classroom> the lecture “How to Git Good: Experience from the Industry” in Wed. 10th August

***General***:

<https://teaching.csse.uwa.edu.au/units/CITS3200/resources.html> for some overall information to be known for this project

1. **Skills and resources required for different roles**

*Roles and their corresponding skills and resources requirements may change in future, one may have more than one role, different roles may have same skills and resources requirements at some stage*

***Front-end developers***: Sarthak Shukla, Yu Li

Have experience in front-end. Use **Jinja**, **HTML**, **CSS**, **JavaScript** to develop front end, who will develop features of web background, text, login page, adding maps etc.

1. <https://frontendmasters.com/guides/front-end-handbook/2018/learning/html-css.html> for some basic skills about HTML and CSS
2. <https://jinja.palletsprojects.com/en/3.1.x/> for basic skills and introduction about Jinja
3. <https://www.fullstackpython.com/blog/maps-django-web-applications-projects-mapbox.html> for adding maps to Django web-based project
4. <https://www.youtube.com/watch?v=rHux0gMZ3Eg> for inserting images to web using HTML
5. <https://www.youtube.com/watch?v=TnvnafO8WQA> for how to set up Jinja

***Back-end developers***: Patton Tinapple, Qichong Huang

Have experience in back-end, use **Django** to develop back-end, who will develop features of linking database to web, login system, user-profile system, search engine, admin system etc.

1. <https://www.youtube.com/watch?v=Z4D3M-NSN58&list=PLzMcBGfZo4-kQkZp-j9PNyKq7Yw5VYjq9> for basic skills in Django
2. <https://www.youtube.com/watch?v=rHux0gMZ3Eg> for Python Django tutorial for beginner
3. <https://betterprogramming.pub/how-to-upload-files-and-images-in-your-django-application-f4d086890e53> for possible ways to upload files using Django
4. <https://docs.djangoproject.com/en/4.1/topics/http/file-uploads/> for another way to upload files using Django
5. <https://www.youtube.com/watch?v=vU0VeFN-abU> for to build a dynamic filtering form with Django

***Database developers***: Dempsey Thompson

Have experience in database, use **SQL** or **MySQL** to develop a database, who will develop features of file storage database, keywords database, backup database, managing files etc.

1. <https://www.youtube.com/watch?v=UxTwFMZ4r5k> for creating SQLite3 database with Django
2. <https://dev.to/mkalioby/tracking-database-changes-4kal> for tracking database changes in Django
3. <https://docs.djangoproject.com/en/4.0/ref/databases/> for some features and functions of databases with Django
4. <https://www.youtube.com/watch?v=s54HYoJ8wrs> for Django database backup and restore + periodic backups
5. <https://docs.djangoproject.com/en/4.1/topics/files/> for managing files with Django

***Tester***: James He

Using **Selenium** for testing, who will develop features of web front-end testing, web back-end testing, database testing, safety testing etc.

1. <https://www.youtube.com/watch?v=Xjv1sY630Uc> for basic skills of Python Selenium web testing
2. <https://www.webmd.com/vitamins/ai/ingredientmono-1003/selenium> for introduction and brief analysis of Selenium
3. <https://docs.python.org/3/library/unittest.html> for tutorial of unittest in python
4. <https://www.guru99.com/selenium-tutorial.html> for detailed tutorial of Selenium
5. <https://www.guru99.com/what-is-backend-testing.html> for some guides of backend testing