Advanced software engineering deliverable 1

For this deliverable the group conducted research specified around the correct implementation of the n queens' problem in specific coding languages.

We explored the languages that the group was most familiar with. These languages included.

- Python
- Java
- JavaScript

What was found was that the best and most accurate implementation for the program was found on a website in which the user used python via Jupyter notebook to implement the program. However, after a further discussion with the head lecturer we reached a decision that further research was required to correctly implement the website into the required final design.

Following further research conducted on GitHub, the team found another implementation that used similar code to implement the problem in a correct website. For future deliverables it will be necessary to understand how the program works and attempt to replicate the design into the correct and final format. Further experimentation demonstrates this code works works via Visual Studio Code (see Fig.1) as well as Google Colab.
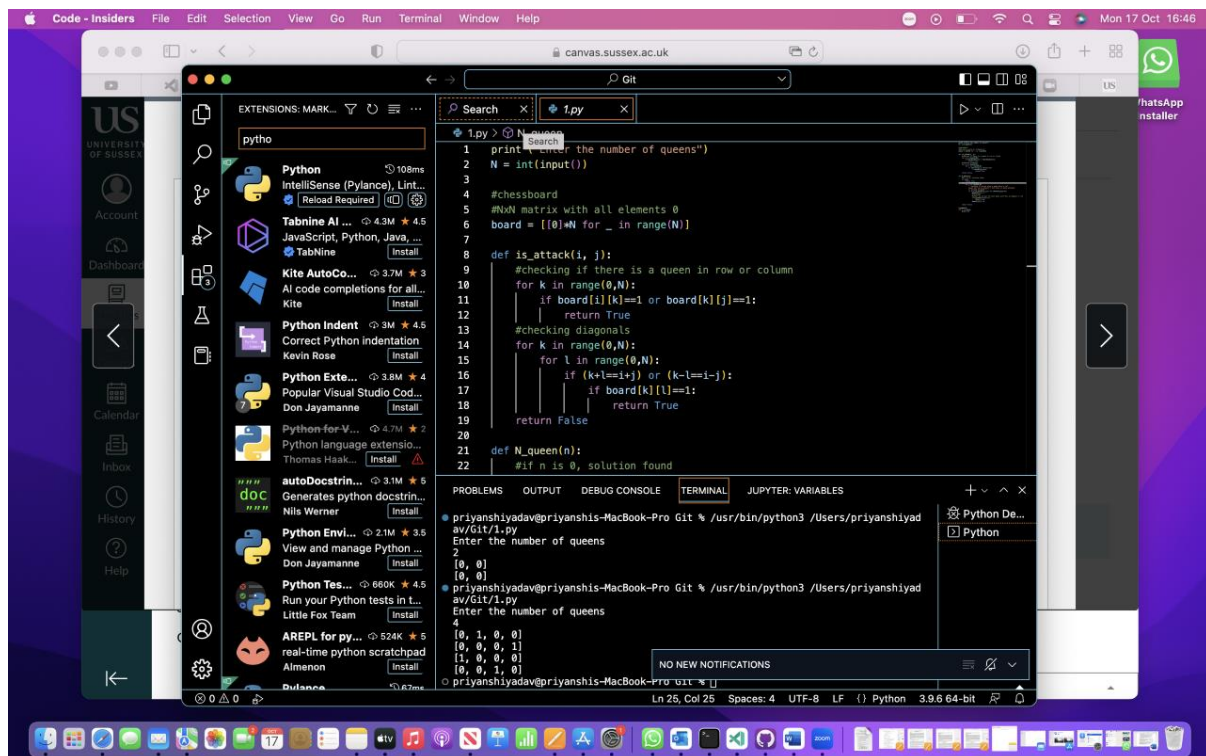

Figure 1: Screenshot showing that code works on Visual Studio Code

The group then made another attempt to remedy the outlying by using php files to solve the n queens' problem. After research was done and the program's operation was understood. The team then tried the issue again and succeeded in developing a functional n queens web application, which

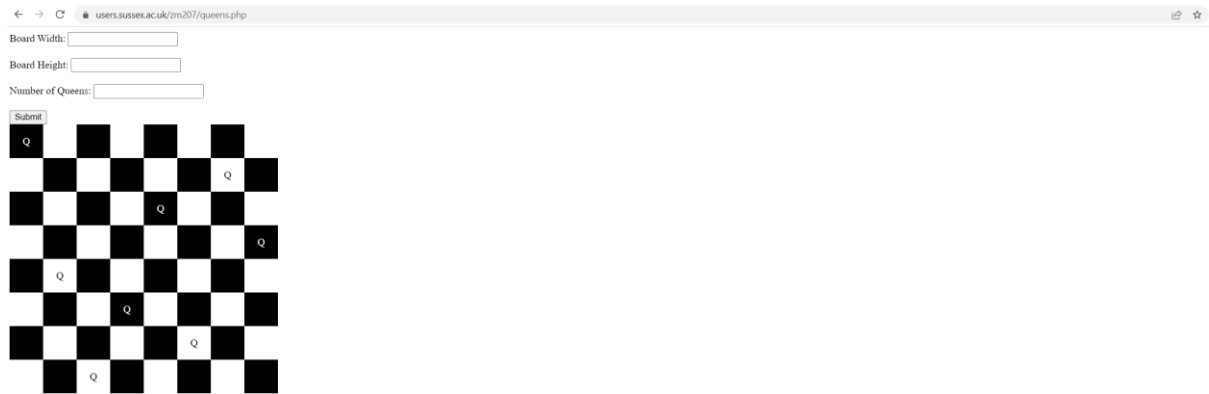so far only functions for n=8.

Figure 2: Final solution for n queens' deliverable.

Group 1

Links for where we got the coding files.

https://www.codesdope.com/blog/article/backtracking-explanation-and-n-queens-problem/

https://github.com/Spyros-Kontolatis/The-N-Queens-Problem---Extended-Simulation

https://users.sussex.ac.uk/zm207/queens.php (This is the link that works for the queen's problem. It contains the same coding files on GitHub)