**C++ Report:**

Lessons Learned:

Carley Mead- I learned how to work within group structures and how to work with everyone's ideas and compile them into one great program. I also learned the work that goes in to making a real, successful, and complex program. Throughout this process I have learned that you cannot start and finish a well-designed project quickly, it takes time and failure to create something successful.

Neeka Sewnath- Through this project, I believe we have all learned how to separate tasks evenly as well as understand what it takes to be a contributing member of a programming group. We have learned how to communicate efficiently with one another in order to get tasks done as timely as possible. We all learned about time allocation as well as how the waterfall model of design and implication works in real life situations.

Bhavana Subramanian- This project has taught me about the importance of communication and expressing ideas in the setting of a group project. Communication through meetings and the messaging platform, Slack, has enabled our group to clearly communicate our goals and capabilities. Additionally, by discussing the unique ideas and approaches that each member of our team suggested, we were able to create an interesting design, and we were able to implement it efficiently.

Juan Leguizamon- Working in a group for this final project has taught me how to not only manage my time but how working in a big group environments actually works. We used a resource called slack to communicate ideas, deadlines, and code changes which was actually incredible to use. It allows us to have different channels to discuss many topics and have them all organized, I will most likely continue using this in the future. I typically don’t use multiple classes in my individual projects so doing so for this project was a good experience with C++ coding.

Jesse Boakye-Donkor- This is project has taught me the importance of having a diverse set of ideas. I believe this asset is great for group work ,because people bring different viewpoints on the same topic. These different viewpoints refine the goal of task at hand. Also, I learned the importance of effective and constant communication. It is was necessary tool on updating the group on any changes to the code, setting milestones, and planning meetings. Overall, I learned that great ideas coupled with effective communication made this group project a success.

Marco Austria - In working on this project I have learned how to effectively work on code in a group. Writing code for a group project is much more difficult than expected and I learned that it requires a lot of planning and communication. It was a great opportunity to learn new aspects of C++ programming and code structure. We also got the opportunity to learn how to use Slack and GitHub which is very beneficial in programming with others. It is great that we could all get creative and learning how to implement our own code that we could then learn how to bring together to work coherently.

Ali Gardezi- While working on this project I have learned how important communication is in regards to group programming assignments. Coding by myself is one thing but coding with a group of people can be very daunting. Thankfully this programming has been very education both in regards to programming with others but also learning how to use C++ in very efficient ways. This project has also taught me how to use important tools such as slack and GitHub that will be very important in my future computer science career.

Future Work:

Carley Mead- In the future, I would definitely implement a slack channel, which we used during this group project, and it made adding cpp files and communicating our ideas for programming projects so much easier and very efficient. I would like to have a structure or schedule from the beginning where all people could meet a specific time in order to be the most efficient and get the most work done effectively.

Bhavana Subramanian- This project has many future applications, it can be expanded into an even larger adventure game. It could also be repurposed for any other quiz game or a similar learning tool. From the group working experience I have learned that in addition to testing pieces of the code separately it is also important to test the different parts together. I have also learned that fixing errors with the help of a group is much faster than trying to fix them all by yourself.

Neeka Sewnath- In the future, if we were to carry out this project even further we would add more unique parts to the game in order to make it a more immersive experience (such as with a rewards system for getting items correct or even incorporating maps and images into the experience). I think that this program project helped me better understand how to lead a team as well as get projects done in a timely fashion. It helped me also learn to always allocate extra time for fixing bugs and other issues within the code.

Juan Leguizamon- In coming years or in my career I will implement a greater sense of communication within my group. We all spoke with one another but at times, it felt as though some were either unsure of speaking their ideas or just shy to do so. In programming, one has a lot of trial and errors and blurting out an idea or a possible correction could actually bring change and success to a project. I enjoyed working in a group of 7 compared to 2 or 3 because we all have certain strengths to add to the whole of the project. In terms of this project, I would love to add graphics and even possibly implement this game into a learning application where children can choose a specific country within a continent and learn about that country.

Jesse Boakye-Donkor- In the future, this project can be made more interactive by implementing a graphic user interface. This project can be used a learning tool for people, especially children, to learn about the world. On a personal level, I will be using tools such as Slack and Github to writing code and communicating teammates . In future projects, I plan implementing the waterfall model for creating and maintaining mobile and computer applications.

Marco Austria - In the future I would definitely take the skills I learned in this group project in my own career. I would definitely utilize Slack and GitHub in the future to allow for efficient communication and group programming. I hope to create more games using C++ in the future as it is very enjoyable and user friendly. This game could potentially be altered for a number of applications in expanding it to an even larger game or for teaching purposes. As always, organizing and spacing out time on the assignment would be very important moving forward so as to get assignments done while compensating for potential bugs.

Ali Gardezi- in the future this game can become even more immersive by adding pictures and a real user interface outside of the command line. This game can also be used as a fun trivia game for people of all ages to learn interesting facts about places around the world. Personally I can be better equipped to use important programming tools such as github and slack which will be very important for future programming assignments I'll have in the foreseeable future.