Incremental Deliverable 1 Risk Report

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1. New technologies: Probability: 9, Impact: 8

   Whenever dealing with new technologies (typescript, react, etc) that the group has not worked with before, there will be a learning curve. This will affect time estimations, writing clean code and overall confidence that the code is working bug free. To mitigate some of the risks associated with new technologies, we have been sharing knowledge via tutorials and group members sharing their knowledge, in the capacity that they can, with other group members.

2. Miscommunication: Probability: 7, Impact 8

   When working with large groups, it will be difficult for us to communicate effectively. Since we are at the start of our project, it will take some time for us all to get on the same page. Thus far we have had many meetings outside of tutorial times to iron out what needs to be done and what each member's assignment will be in the development of our project. These meetings have been a mitigation strategy that we are employing. We are also using other software, notion, to keep track of what was discussed in meetings as well as planning for the following meetings. With time and experience, we hope to minimize this risk.

3. Time estimations: Probability: 5, Impact: 5

   Since the project has just begun, it will be difficult for the group to gauge exactly how long a task will take. It will be a partial unknown until we have more experience developing our app. To mitigate this risk, we have daily standups using a discord bot to record what we have been working on in the previous days and what we will be working on today. With this information we hope to be able to gauge our time usage effectively. In turn we believe that this will aid us in giving better time estimates in implementing new features.

4. Learning the codebase backend: Probability: 8, Impact 6

   For the project so far, we have been porting code from the BEAP repo for the original project. We have just been so far implementing the UI. It is non-functional until we connect it to the backend for the website. There is a risk of connecting the backend to the frontend UI and the app not functioning as intended. To mitigate this risk we have been having stakeholder meetings and seeking further information.

5. People dropping the class: Probability: 5, Impact: 5

   We are at the beginning of the term and there is a possibility that a member drops the course. Our contingency plan for this risk has been to shadow each other's work. We have had many group meetings and are keeping communication on all topics. Another action we have taken is to document thoroughly each aspect of what our team members are working on using notion. Our meetings, group and stakeholders have been documented so that we know what has been talked about to help with keeping record of all things this project entails.

6. Using the same coding style: Probability: 5, Impact: 4

   Since there are multiple people developing the BEAP web app, there may be many different coding styles implemented. To Mitigate, we have made a coding style document to make sure that we are naming git branches appropriately so it is understood what feature we are working on in that particular branch. Naming conventions will be important in making sure everyone can plainly see the purpose of each branch. This will make it easier for everyone in the long run. We are also making use of pre-commit hooks for the Prettier code formatter as well as Linter. Prettier is a code formatter. Linter is another useful tool, it directly compares the code to a predefined set of rules. Together these tools help us create more uniform code.

7. Group Members having other commitments: Probability: 8, Impact: 4

   Group members are all students with varying classes and schedules. The probability that students will have other commitments during the term is high. To mitigate the impact of this risk, we will be sending out polls to find out when members will have to take a reduced workload in this project. A form will be sent out to find out when those dates are, and we as a group will reduce the workload of either a specific member or the entire group. This includes midterms and big project due date deadlines.

8. Poor development goals: Probability: 7, Impact:7

   This risk encompasses the plans in developing this app that are not well defined. If the development goals are not well defined, we risk wasting time and effort on a goal that is not feasible or unknown. This will impact our ability to produce the product. To mitigate this risk, we are having many meetings with team leads to help make plans that make sense to all leads involved. A plan is posted on our groups Notion App at the start of

each deliverable to help guide our decisions to implement features that add value to our product.

9. Quality Assurance writing poor test coverage: Probability: 5, Impact: 6

   For the QA lead to write good test code, he will have to communicate with the development lead. Good test coverage makes for reliable code. If the QA lead does not know what the development lead is planning to do for the next deliverable, the test plan will be incomplete and we risk approving code that has not been sufficiently tested. The mitigation strategy is for the leads to communicate. The communication will allow the test team to begin to implement test cases before code freeze, making them prepared for expected code in advance. This will ensure test coverage will be sufficient for every deliverable.

10. Scope Creep: Probability: 5, Impact: 7

    If the scope of the project grows too large, it will make it difficult to complete what the group is setting out to accomplish. If we begin planning to implement too many features, we will in turn set ourselves up for failure. There has been talk of nice to haves such as implementing a mobile app for android and ios. Without a functioning web app this will be impossible to accomplish with good software development practice. To mitigate scope creep, frequent meetings, and updates to our project will be documented. This will give us a better gauge of what is possible while conforming to good software development practices.