**Selected Methodology: Agile**

**Reasoning:** Requirements are likely to change, and an Agile approach will give us the chance to adapt to changes the sponsor may want following meetings with minimal risk of setbacks to development. This will ensure the best quality application fitting the sponsor's needs in a shorter amount of time as we move forward with the project, and keep the entire team engaged as everyone plays a strong role throughout the whole project in the Agile methodology.

**Drawbacks:** The agile methodology lacks significant predictability and has a higher chance of scope creep. Predictability is not much of a problem because we expect things to change as we move forward. The scope could grow larger than anticipated due to the welcoming of new requirements, so we have to make sure that we stick to completing the MVP first and move onwards with priority of requirements in mind.

**Planned Activities and Artifacts:** We will have sprint planning meetings carried out by the given Scrum Master and Product Manager to make sure our stories resemble the requirements. We will also have stand up meetings throughout the week so everyone knows what is being worked on, what everyone has completed, and if there are any impediments. We will have a sprint review meeting with the sponsors on Tuesday, a stand up on Thursday, and a retrospective on Monday to show the work that we have accomplished and to reflect on that Thursday's meeting. As for artifacts, we will have a product backlog to show what work needs to be done in what order to meet the requirements. We will also have a sprint backlog to show what work is currently being worked on by who. We will have a definition of done and product increment to show what work has been completed. All of these artifacts will change in cycles throughout 1-2 week sprints.

**Roles:** In this project, we will have a product owner, responsible for making sure we meet expectations and requirements, as well as filling out the backlog. We will also have a scrum master to make sure we stay true to the agile methodology as well as its given artifacts and activities. Everyone will be part of the development team to ensure that work is carried out within each given sprint. We will also have a designated tester to ensure that the stories meet the expectations.

**Standards and Quality Practices:** We will carry out high level testing after development on each story is complete before the story is truly done, and quality assurance testing after each sprint to ensure that the application is working as expected.

**Tools:** We will use Trello to track stories in the product backlog, sprint backlog, in progress, ready for testing, in testing, and done categories. This will help us stay true to the agile methodology and manage our work efficiently. We will also use github as our code base to deploy and run the application.

**Metrics and Measurements:** We will use a sprint burndown to track the remaining work throughout the sprint, and we will track velocity to appropriately estimate the amount of effort required in the next sprint.