1. Provide an example of five hypothetical non-functional requirements for this system. Be sure to include the specific type of requirement discussed in class, with each requirement coming from a unique category.

Nonfunctional:

1. Notification banner given every day,
2. Accessible on different platforms,
3. Customizable and personalized themes,
4. Makes use of JavaScript and/or HTML/CSS,
5. Server is adaptable and responsive to changes in the network.

2. Provide an example of five hypothetical functional requirements for this system.

Functional:

6. Progress tracker monitors user productivity by updating each time a task is completed,
7. Alert system alerts user based on their platform setting configurations,
8. Show activity status of each member (XP bar) at all times on the interface,
9. Checklist that automatically updates through linked tasks,
10. Team communication interface that provides for immediate discussion on shared tasks.

3. Think of a specific task required to complete each of the functional requirements and non-functional requirements mentioned above (10 total). Estimate the amount of effort needed to complete this task using function points (i.e., using the values here). Briefly explain your answer.

1. 5, because this is a simple, repetitive task.
2. 20, because making connections across different platforms with different interfaces may be difficult to configure.
3. 13, because being adaptable to individual preferences may be more involved.
4. 3, because these are simple settings and preferences that can be modified from a preset list of options.
5. 20, because unanticipated and unforeseen changes may be difficult to adapt to in a timely manner.
6. 13, because the tracker is reliant upon the user but this requirement may pose issues if different tasks are weighted differently.
7. 5, because this is a simple reminder function that can be applied to different assignments.
8. 13, because this is a constant function that is always available on the interface but is impacted differently by different assignments which may pose issues.
9. 20, because this is reliant upon a network connection with an outside platform, and establishing this connection to be versatile with any site can be difficult.
10. 40, because though the communication between users would be restricted to the FocusBot interface, but having real time updates with several users at a time may be difficult to establish.

4. Write three user stories from the perspective of at least two different actors. Provide the acceptance criteria for these stories.

“The FocusBot was critical in keeping me on track with my school work when classes went online because of covid. Without the traditional classroom setting, I struggled to be productive at home, but with the help of FocusBot, I was able to link all of my assignments to the platform to receive reminders about upcoming due dates.”

“I needed help with organizing all of my assignments and tasks when I entered college because the course expectations were very different. FocusBot provided a platform where I could visually keep track of my assignments, and the systematic alert system was effective in making sure I never missed a deadline.”

“I needed a tool that allowed me to communicate efficiently and productively with my peers because with remote work, the lack of active collaboration significantly hindered my productivity. FocusBot was essential in providing the platform for communication and collaboration I needed to effectively complete my assignments and work.”

5. Provide two examples of risk that could potentially impact this project. Explain how you would mitigate these risks if you were implementing your project as a software system.

One risk that could occur is using the wrong software development process for our project. If we choose the wrong process, we could face significant difficulties in the development process. Another risk we could face is not effectively anticipating user response to our project. If we do not accurately predict how users will use our software, we could waste time developing software that is unnecessary to users and not spend enough time productively.

6. Describe which process your team would use for requirements elicitation from clients or customers, and explain why.

We have decided to use prototyping as our way to elicit requirements from clients. This is the best method because we can really start to understand what our client wants/needs in order to have a useful focus bot. A focus bot is a really general piece of software so making sure that we are on the same page as the customer is our priority.