Team: Team Name (group 7)
PID's: mayam22, ethanbourne25, cwgraves, brandonh03
Members: Maya Makked, Ethan Bourne, Connor Graves, Brandon Hoang

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0.c) Provide your preliminary project idea or ideas. This is not a commitment to a project.
- Meeting scheduler
- Scrum master
- Todo/project flow/work tracker manager
- Kanbanner
- FocusBot/Taskmaster

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.

Usability Requirement: Text must be visible from 1 meter away on a typical monitor screen. Any colors used must be high contrast and labels must have an intuitive icon.

Reliability Requirement: The software should have at most one failure every 14 days. Functionality and data must be able to be restored within 8 hours.

Performance Requirement: The program will not take more than 2gb of ram at any given time, and thus should not have a noticeable performance reduction on modern machines..

Supportability Requirement: Should be easily configured and customizable for different projects types and teams.

Implementation/Constraint Requirement: Must be able to run on Windows 10/11, MacOS 12 Monterey/13 Ventura, and Linux.

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

The software must track completed and assigned tasks, keep a history of those tasks, and support the addition and deletion of new tasks. It must do this individually and at the team level.

Must have an integrated Pomodoro technique timer that will alert the user.

Must include a website blocker that works with the Pomodoro timer.

Task deadline/meeting reminders.

Minimizable to a "sticky note" that switches between tasks and persists on screen. Has task details on the note.

Motivational support button

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

Non-functional:
For Usability Requirement: Configure text to be a font visible from 1 meter away, configure text color to be black and background colors (ex. sticky note color with light blue or yellow) to be light colors, and sketch icons. 5 functional points because the tasks themselves are not super difficult, but they might take some time particularly the icon sketching, as each one needs to look nice and appropriate.

For Reliability Requirement: Configure a backup database for standard data data just in case the system goes down and the regular database cannot be accessed in a timely manner. 13 functional points because it will be a lot of work to configure a separate database with a large amount of data in the system, although it will not hold all the data and can reference the already existing database.

For Performance Requirement: Analyze how much ram each task takes and how much each task is done simultaneously with other tasks, as this will affect how much ram can be used. 8 functional points because there is no implementation done in the system, but the analysis will be worthwhile and time consuming.

For Supportability Requirement: Interview different teams with different projects to analyze different needs and gain an idea of the system's flexibility. 13 functional points because a lot of different interviews will have to be conducted.

For Implementation/Constraint Requirement: Obtain computers running all the different operating systems and test out if the required features function on all. 13 functional points because this will be a large, widespread testing endeavor.

Functional:
F1: Make the classes that handle tasks communicate with the database. 21 functional points because this will be challenging, as there is a lot to look through to make sure all the proper communications are happening.

F2: Pull data from an API to use for the Pomodoro timer. 8 functional points because thought needs to be put into what API and data should be used, although this task is not super broad.

F3: Integrate the website blocker with the Pomodoro timer. 8 functional points because it will be tricky to figure out the integration, though again this task is not super broad.

F4: Create a class that deals with reminders and make it communicate with the system clock. 13 functional points because dealing with the real-time clock will be hard.

F5: Do user-interface programming for the sticky notes. 5 functional points because the sticky notes themselves won't be too hard to create.

F6: Pull motivational quote data from APIs. 3 functional points because this should just mostly require simple API calls.

4. Write three user stories from the perspective of at least two different actors. provide the acceptance criteria for these stories.
As a manager, I want to be able to track the activity of an employee if I believe they are slacking off and not doing what they are supposed to. Acceptance criteria will be reached when a higher up can have toggles for people they work with who are below them. A toggle should turn the tracking feature off and on for a particular employee.

As an employee, I want to be able to change the color of my sticky notes. Acceptance criteria will be reached when a worker can choose the color of their sticky notes using light colors as options.

As a team leader, I want to be able to assign a task to a worker. Acceptance criteria will be reached when a team leader can assign a task to a worker and that task appears as a sticky note on the worker's screen when appropriate.

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 to this project is that people might think it is a violation of privacy for higher ups to be able to track your activity, specifically outside of work. To mitigate this, this tracking feature should be configurable to only work on the company network for an employee.

Another risk is that people might get distracted with the motivational support button, which would in turn lead to inefficiency. To prevent this risk, the amount of times an employee can use the button should be limited per hour.

6. Describe which process your team would use for requirements elicitation from clients or customers, and explain why.
We will use the ethnography method for requirements elicitation because to truly optimize the system, it will have to work well with people's natural behavior. A social scientist will be able to get the best analysis of people's natural behavior while they work.