

### Rationale:

- Organizing and managing tasks is a part of everyone's life. Keeping track of multiple tasks from multiple areas of your life can quickly become overwhelming. The personal task manager app is here for you to enter tasks and to help ensure you get them done. Speed and ease of use are the priorities so you can get to completing your tasks rather than spending hours planning. This product will help ensure tasks don't get forgotten, tasks are completed on time, and keep the user from being overwhelmed by procrastination.
- Target Market: The product is targeted towards anyone who needs assistance in better organizing their life. The product can be utilized for something as simple as managing household chores for the week or even managing tasks at work. Student specific features are included to better organize tasks by semester and course. Additional prioritization features based off of class assignment weights make students a specific target for the product.

### Description of System:

- The system is a personal management software targeted at managing tasks and assignments. A significant priority for the system is ease of use and speed. Other task management systems out there frequently overwhelm the user with options for data entry. Simplifying the system makes it so users can quickly enter their tasks or assignments to be completed and begin working on completing their tasks. The system enables multiple ways to view tasks at hand. Multiple sorting options are available by date, priority, or by entry time. Generating to-do lists also helps users quickly get a list of tasks to work on. Users can also view their data on when and which tasks they have already completed.

### Functional Requirements:

- Add task or assignment: Include details such as name, description, due date, priority level, course, etc.
- Add subtask or sub assignment: Provide the ability to break tasks down into smaller tasks, especially useful for larger scale projects.
- Create semester: Create semester which will host courses and allow users to view their tasks by semester.
- Create course: Will exist within the semester and allow users to assign tasks to a course for better organization.
- Sort by due date: Organize current tasks by date they are due.
- Sort by priority: Organize tasks by user set priority.
- Sort by manual: Allow the user to manually organize tasks.
- Generate to-do: System generates a list based on user provided input such as time span, length of list, priority, etc.

- View competition data: Display user data to show habits and trends for competing tasks.

#### Non-functional Requirements:

- Simple UI: Provide a simple UI for users to be able to easily find which tasks they need to work on completing.
- Organization: Utilize semester structure and dates to show tasks in a manable view for upcoming due dates.
- Scalability: Make it simple for users to add more tasks or switch to a new semester.

#### Use Case Diagram:



#### Actor:

- User: The system is designed to be standalone for one user. Collaboration or multi user task lists are not a current feature. All use cases are directly related to and accessible by the user of the system.

#### Use Cases:

- Add Task: Base functionality of the system. Users will be able to select, “create a new task” and then enter information for the task and when it must be completed by.
- Add Subtask: Allows larger tasks to be split up to make them more manageable for the user. Base tasks will not be marked as complete until all subtasks are completed. Subtasks are able to be added to base tasks at any time.
- Add Assignment: Similar to task but exists within the specific scope of a course. Assignment type and graded or not are examples of additional characteristics within this use case.
- Add Sub-Assignment: Similar to subtask, allows major assignments to be split up into smaller segments. Useful for long term projects or complicated assignments. Base assignment will not be marked as done until all sub-assignments are complete.
- Create Semester: Used to organize classes and allow users to sort by courses they are currently taking.
- Create Course: Exists within semester, courses can contain specific content such as weighting of assignments, professor contact info, meeting times, etc. Information set up within the course adjusts how inputting tasks for specific courses will look later on. (Ex: if a course doesn’t have quizzes you will not be prompted about quizzes)
- Sort by Priority: Sort and display current tasks by their set priority.
- Sort by Due Date: Sort and display current tasks by their due date.
- Sort by Date Added: Sort and display current tasks by their date added.
- Generate to-do: Create a to-do list based on user input information. Allow users to specify the length of the to-do list, the date range, the priority of tasks, etc.
- View Completion Data: Display data on tasks and when the user has completed them. Allows users to gain insight into habits for task completion.