COMP3900/9900
2022 Term 2

Project 4

Task Management System

Tracking where you and your collaborators are with tasks that you have got an interest in is a very important feature to have. This is where **Task Management System** comes into play. This platform allows task masters to maintain a profile that shows tasks being worked on at a glance, connect with others, and communicate the state of each of their tasks. It provides an easy way to create and assign tasks to task masters you collaborate with, and search for any tasks within your network of task master collaborators. You can even see an estimate of how busy each of your connected task masters is.

The developed system should do, at least, the following:

- Task masters must be able to maintain a profile where they specify their name and contact details (email address).

- Each task master must be able to request a connection with 1 or more other task masters (by email address), and accept or decline connection requests from other task masters (two task masters are connected if one of them accepted a connection request from the other).

- Task masters must be able to create a task, including a title, description, optional deadline, and assign it to either themselves or one of the task masters that they are connected with (each task must also have a system-assigned id that is shown, and is to be assigned to the creating taskmaster if not assigned to anyone else).

- To view the work to be done by a task master, their profile must also include an "Assigned Tasks List", showing all of their assigned tasks with each task showing summary details of the task ID, title, and deadline (if specified), sorted by deadline (earliest to latest deadline, with tasks not having a deadline appearing last).

- Each task master must be able to view details on the profiles of any other connected task masters.

- To progress the state of a task, a task master must be able to update the status of a task they have created or that they have been assigned. Valid task states include "Not Started" (start state for new tasks), "In Progress", "Blocked", and "Completed".

- Over time, the number of tasks existing in the system will build up, so it must be possible for a task master to search, through all tasks assigned to themselves or any task master they are connected to, by any combination of id, name, description and/or deadline, and view the full details.

- The system must be able to show a task master an estimate of how busy each of their connected task masters will be over the next week. From 0% (minimum possible) through to 100% (maximum possible), or "100%+ (overloaded)" for any task masters it thought were overloaded, where this value can be based on a combination of their assigned tasks, task states, task deadlines, how long similar tasks have taken to complete in the past, and/or any other variables that you wish to use/introduce for the purposes of estimating how busy each task master is.

You need to come up with, at least, eight (8) functionalities including, at least, two novel functionalities with respect to existing related car space sharing systems.

Useful Links

1. https://monday.com/
2. https://www.teamwork.com/