

University of Bridgeport



Task scheduler

Group 6

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Task Scheduler

In today's world, managing tasks in any work atmosphere needs automated and efficient task scheduler. It enables distribution of the work amongst the members. Provides ability to launch and manage tasks and events. The use and scope of the task scheduler is very vast. It can be used in any company or even with people sharing a house, different household chores can be divided amongst the members of the house. In general terms a "**Task**" is the action taken in response to "**Provocation**". The scheduler is designed in such a way that it performs specific tasks in an automated way at a certain time. All the information of the team members will be stored in the database. Accordingly the tasks can be divided.

The scheduling of the tasks can be done when:

- Task is registered
- At a specific time
- At a specific daily, monthly or early schedule
- For specific members participants

In our project we plan to create a database which fulfils the needs of the task scheduler. All the information regarding the team members of the scheduler can be stored and the manager or the head will be able to select and assign the task to specific member based on various criterions. As mentioned earlier this scheduler will be entirely automated.

We are planning to add many other features such as communication between the task members, feedback, issues related to tasks etc in our project. The database will be created using various events. **Data event** is a relevant state transition defined in an event schema.

We are creating database basically focussing on two zones, roommate household chore management and task scheduling in an organization.

Following are the **Entities** used in our project with brief description:-

- 1) **Task** - Includes the tasks which are to be performed.
- 2) **User**- Includes the members or the users who are going to participate in the task work.
- 3) **Team**- Includes the information regarding the team which is assigned for a particular task or work.
- 4) **Projects**- Includes information about the projects currently being worked on.
- 5) **Tools**- Includes the database of tools that can be used by various team members (example software tools).
- 6) **Chat room**- Can be an interface for communication between group members.
- 7) **Documents**- Contains the entire database related to the documents used for various tasks.
- 8) **Notification**- Notifies the team members for approaching deadlines for tasks or any other information from the leader.
- 9) **History**- Includes the history of the tasks performed with details of the task members.
- 10) **Duration**- Includes the time relation details of the tasks.
- 11) **Meetings**- Discussions and conclusions drawn by the teams for better performance and future reference.
- 12) **Escalation**- Contains details regarding outsourcing or forwarding of the tasks if team members are unable to perform some tasks.
- 13) **Extension**- Contains database of the tasks that were not completed on time due to some reasons.
- 14) **Address**- Information about address of the team members.

Queries

- 1) First of all application will perform authorization check where as per the criteria of user, he will get the particular rights for operation i.e. Admin can assign task to various team.
- 2) The manager can select the team as per the specialization and availability of employer and the need of the task i.e. as per the working hours, type, his specialization etc.
- 3) If the task leader chooses some member to perform particular task, but without the member's approval task cannot be performed and alternative member can be searched.
- 4) For particular task, the manager can search the current status of the task and also can add remarks on it. Apart from that if there is any delay in task than there will be some extension period also.
- 5) While particular task is going on, there are lots of other things that project team can do like task meeting, group discussion.
- 6) There may be some escalation during the task for example some the project member leaves the task in between, so his alternative member can be selected.
- 7) In the situation of task escalation, the new member should know the progress of the task and is able to continue with the current task flow.
- 8) In some cases, there are already some predefined teams who has earlier worked on different projects. So manager may has good options to select his team.
- 9) As there may be predefined teams, to give ease of work for manager in selecting a team, the manager can check the skills of each team member, team strength, the task performed by the team and if required the manager can customize his own team.
- 10) Many times there may be requirements of the different tools so an employer can check the availability of tools and some the tools of the can be preassigned to the task as per the requirement.
- 11) In any particular task there is a need of the notification to the employers working on it, for example whenever the task is assigned to particular employer, he should be notified. Apart from this, if there is any change in task all the members working on that task should get notification about it.
- 12) An employer can create his own notification or reminders to alert themselves.
- 13) The task leader can keep the track of the working hours of the particular task member and can estimate the time required for the task to be completed and if needed, he can extend the task duration.
- 14) In some scenario, some of the task members may be working remotely. So there is a need of the discussion chat to solve the problem they might be facing during the work.
- 15) There is a facility of feedback means the manager can give feedback for his particular team on the completion of task and when the project is delivered to user, he also can give his feedback for the task delivered.
- 16) Manager can assign document upload to a member, respective member can see requested document detail in his/her queue. And on document upload manager will be notified.
- 17) Member can work on multiple tasks, displaying all assigned task sorted by next in queue with percent completion on Members dashboard.
- 18) If member fails to complete task look up for a user which has better reviews and availability.