TIME TRACKING SOFTWARE

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Summary of Project

 Time Tracking Software is an open source web application developed using C#, Ajax, MS-SQL Server. It enables the organization to keep records of the similar task's timelines assigned to different employees or actual time spent on particular projects. It provides reports to measure productivity and performance of individual and team which is quite helpful for better future planning.

Time tracking software application consists of two modules. One for employees of the organizations – who can login to the system with their credential and enter their daily timesheet. Employee can choose project, task and enter the time to complete that task. The other one is for the Administrator of the organization – who can see all the timesheets fill by employee on its dashboard. Administrator can generate reports of timesheet by Project-wise/Employee-wise/Task-wise.

Personas, Actors, and Stakeholders

Primary Personna:

Aaron is **project manager** at Narola IT Company. He is managing multiple projects, as he has a strong management skills and has good command over software project management tools. He wants to keep record of each and every project running under him, to keep track of project's cost, time and employee performance. Therefore, he splits the project into tasks and needs a system, where employees working on these projects can update the time spent on these tasks. He avoids to do things manually and prefers

to get things automated. He was doing this task monitoring manually, which was time-consuming and error-prone. So, he wants to automate these tasks through a system. By auto-generating reports of this time logging, he can evaluate performance of employees, avoid project cost over-run and any possible delays.

Secondary Personnas:

Employee: Morgan is an Employee at Narola IT Company. He updates the time spent on a task manually, which is error-prone and time consuming. He has a strong knowledge of Computers, as most of his tasks are performed on Computers and hence always prefers to do all his tasks on computers. Therefore, he wants a system, where he can update his time logging and use his time more constructively.

CEO: Ashley is CEO at Narola IT Company. She wants to keep track of all the project running at Narola, under all the project managers working in the company. She was generating reports for each manager manually to compare them, evaluate the company's performance and plan for the future accordingly. This manual task is very time consuming and is affecting the company's decision making capabilities. She deals with her clients onsite, and needs to take decision spontaneously. So, she is in need of a system, where she can instantly generate time reports for each project and tasks, and take guided & informed decisions.

Other Stakeholders and Actors

Stakeholders: System Maintainer, Finance Department of Narola.

Actor: System Maintainer(Secondary Actor)

Informal Use Case

View Employees Activity :

Aaron is project manager at a **Narola *IT company***. He <u>decides to keep record </u>of each and every team member's **timesheet** that how much time each member gives to complete the task assign to him. He <u>uses "Time tacking software"</u> by <u>entering</u> his admin credentials to view all employees work hours of last day, current week and current month. **Administrator** <u>views</u> all this information in **dashboard,** <u>uses</u> timesheet, which <u>uses </u>employee's details.

This   information   <u>helps   him</u>   to   manage   the   **project**   timeline.

Update Employee's Timesheet :

Morgan is an employee (software Developer) at **Narola IT Company**. Yesterday he forgot to <u>fill out</u> his timesheet. As he <u>is an</u> employee of a Company, he <u>does not have</u> **permission** to fill his timesheet of yesterday. His Project Manager <u>updates</u> **permissions** for his timesheet for yesterday.

Get notifications :

As a project Manager, **Aaron** <u>wants to know</u> that how <u>is his</u> employees working and what the status of the all projects under him. **Aaron** <u>uses </u>the system and <u>search</u> for Get notification where he <u>can see</u> the progress **Reports** of projects and the list of employees who did not update their timesheet.

Scenario use case:

Generate Report
1. **Administrator** <u>intends to generate</u> **Report**.
2. System <u>displays several options</u> to generate Report.
3. Administrator <u>selects</u> one of the options.
4. System <u>Displays</u> selection parameters to generate report.
5. Administrator <u>enters</u> particular Dates and **Project** name.
6. System <u>generates</u> the report <u>using</u> timesheet.

View Timesheet
1. System <u>provides</u> different aspects to <u>view</u> Timesheet.
2. Administrator <u>selects</u> one of the aspects.
3. System <u>displays</u> several Criteria to view Timesheet.
4. Administrator <u>Enters</u> criteria for timesheet.
5. System <u>Displays</u> timesheet for Specific Criteria.

Employee Master
1. Administrator <u>navigates</u> to **Employee** master option.
2. Administrator <u>manages</u> employee details.
3. Administrator <u>Requests</u> to save data.
4. System <u>saves</u> all data.

Tentative Time Allocation
1. Administrator intends to <u>manage</u> project which <u>has</u> collection of tasks.
2. Administrator <u>manages</u> Tentative Time Allocation for **task** of the project.
3. System <u>displays</u> the selection Criteria for time allocation.
4. Administrator <u>enters</u> particular criteria.

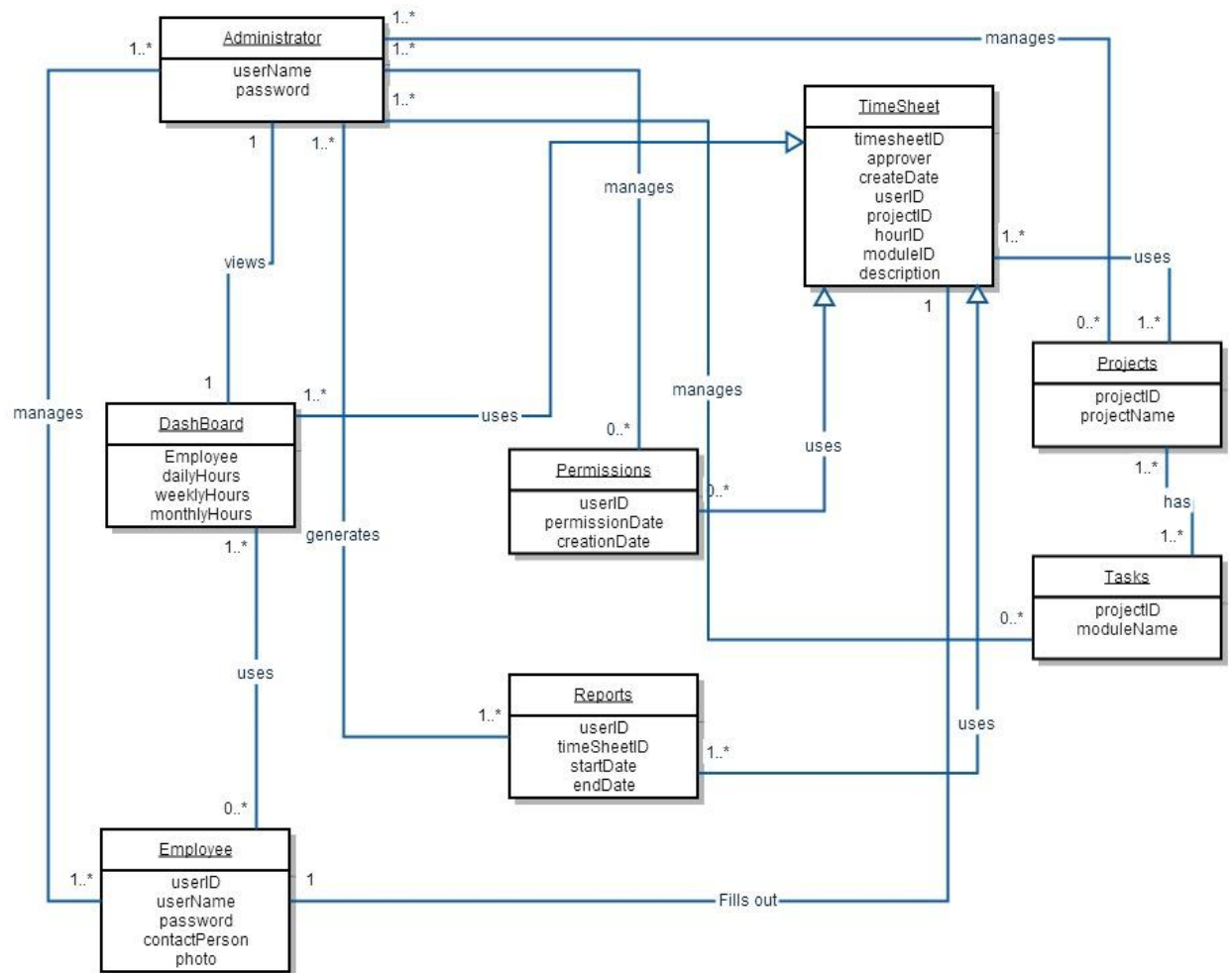|	
5.	System <u>Displays</u> Time allocation Sheet.
6.	Administrator <u>fills</u> the sheet and <u>request</u> to save data.
7.	System <u>saves</u> all data.

Table 1: Noun, Synonyms

Noun	Synonyms
Administrator	Project Manager

Table 2: Verbs, Synonyms

Noun	Synonyms
Manages	Add, Update, Delete

UML Diagram

The administrator part of Narola time tracker software contains following 8 entities(conceptual classes) at abstract level:

1. Administrator
2. Dashboard
3. TimeSheet
4. Permissions
5. Projects
6. Tasks
7. Reports
8. Employee

The **administrator** of Narola time tracker software manages **projects** which is a collection of **tasks**, which is also manages by administrator. The administrator can also manages the **employees** who fills out the **timesheet** which used by **dashboard** to generate consolidated view for the administrator. The administrator can updates **permissions** of employee's timesheet in case employee forgot to fill for previous days. Finally, administrator can generate **reports** which use timesheet for business purpose.