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20/02/24

Topic → Online Task Management System

I] Requirement Analysis:

- User-Friendly Interface: The system must feature an intuitive and user friendly interface, ensuring effortless task management through clear navigation, concise labelling and visually appealing design

- Task Assignment: User should be able to assign task to specific individuals and monitor their progress until completion.

- Collaboration: The system must facilitate seamless collaboration among user, allowing for real time updates, communication and sharing of files and comments.

- Reminders and Notification: A strong and powerful notification system should be in place to alert users of upcoming tasks and deadline, leveraging email notifications, pop-up reminders or both.

- Reporting: Managers require a comprehensive reporting module to generate insights on task completion rates, time tracking & overall team performance aiding in productivity assessment and identifying areas for enhancement

- User Authentication: Implementing a secure user authentication and authorisation mechanism is crucial to safeguard sensitive task related information & ensure that only authorized users have access.

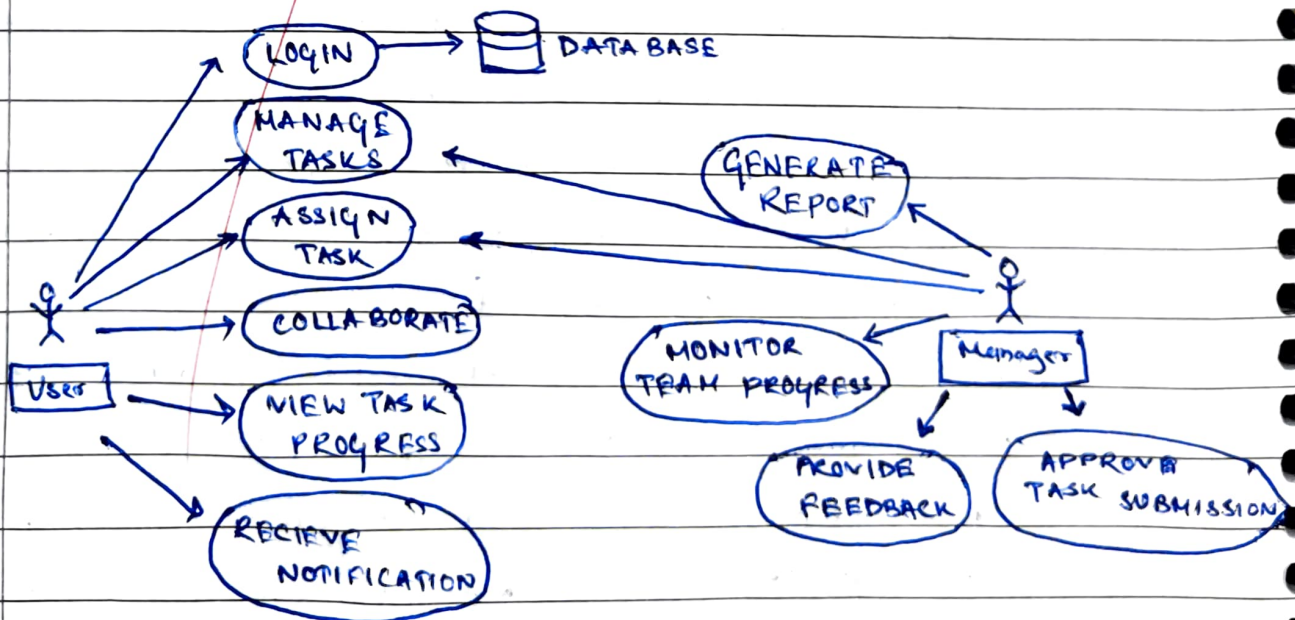- Task Management Features : Users should have the ability to create, edit and delete tasks.
- Mobile Responsiveness : The system must be accessible across various devices allowing user to conveniently manage tasks on the go.
- Data Security & Privacy : Ensuring the security & privacy of user data is necessary, requiring measures to protect sensitive information.

## II] USE CASE DIAGRAM

### II.i> Actors
→ User
→ Manager

III] DFD Diagram

III.1> Level 0 →

```
┌────────┐       ┌───────────┐     ┌───────────┐     ┌──────────────┐
│        │       │    1.0    │     │    2.0    │     │     3.0      │
│  USER  │──────▶│   USER    │────▶│   TASK    │────▶│ NOTIFICATION │
│        │       │ MANAGEMENT│     │MANAGEMENT │     │ MANAGEMENT   │
└────────┘       └───────────┘     └───────────┘     └──────────────┘
```
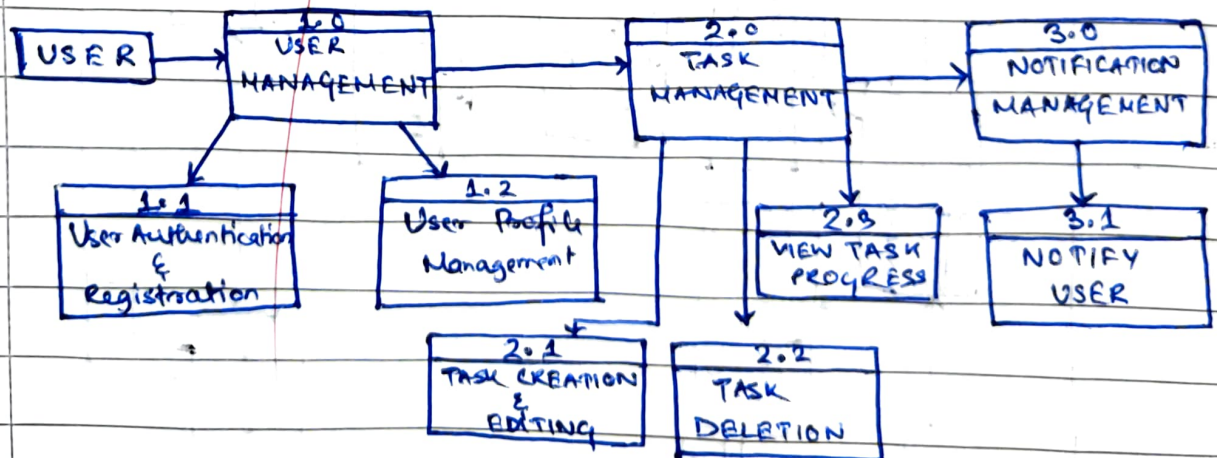
Entity - Online Task Management System or USER (here)
Processes - ① Task Management - Handles processes related to
creating, editing and deleting tasks
② User Management - Handles processes related to ~~meeting~~
user authentication, registration & profile management.
③ Notification Management - Manages processes related to
sending notification for task assignment, update & deadline.

III.2> Level 1 →

```
┌────────┐      ┌───────────┐          ┌───────────┐          ┌──────────────┐
│  USER  │─────▶│    1.0    │─────────▶│    2.0    │─────────▶│     3.0      │
└────────┘      │   USER    │          │   TASK    │          │ NOTIFICATION │
                │ MANAGEMENT│          │MANAGEMENT │          │ MANAGEMENT   │
                └───────────┘          └───────────┘          └──────────────┘
                  │        │              │     │                   │
                  ▼        ▼              │     ▼                   ▼
          ┌──────────┐ ┌──────────┐       │ ┌──────────┐      ┌──────────┐
          │   1.1    │ │   1.2    │       │ │   2.3    │      │   3.1    │
          │   User   │ │  User    │       │ │ VIEW TASK│      │  NOTIFY  │
          │ Authenti-│ │ Profile  │       │ │ PROGRESS │      │   USER   │
          │  cation  │ │Management│       │ └──────────┘      └──────────┘
          │    &     │ └──────────┘       │
          │Registra- │       │            ▼
          │  tion    │       ▼       ┌──────────┐
          └──────────┘  ┌──────────┐ │   2.2    │
                        │   2.1    │ │   TASK   │
                        │   TASK   │ │ DELETION │
                        │ CREATION │ └──────────┘
                        │    &     │
                        │ EDITING  │
                        └──────────┘
```

III.2) Level 2 DFD →



**3.0 NOTIFICATION MANAGEMENT**

**3.1 NOTIFY USER**

**D2 NOTIFICATION LOG**

**2.5 APPROVE SUBMISSION**

**2.0 TASK MANAGEMENT**

**2.2 ASSIGN TASK**

**2.3 VIEW TASK PROGRESS**

**2.4 COLLABORATE IN TASKS**

**2.3.1 TASK CREATION & EDITING**

**1.2 User Profile Management**

**1.0 USER MANAGEMENT**

**2.5.1 PROVIDE FEEDBACK**

**2.3.1 GENERATE REPORTS**

**1.1 User Authentication & Registration**

**USER**

**D1 Login Info**

**MANAGER**