

TaskSphere

Concept Overview

- **Admin** can create users and assigns roles.
- **Manager** creates teams and tasks, tracks employee progress.
- **Employee** sees only their assigned tasks and logs time.

Microservices Overview

Api Service - Authentication, registration, token validation, logout, routing

User Service - Manage users, roles, teams, user-team relationships

Team Service - Create/delete teams, assign managers, add/remove users to teams

Task Service - Create tasks (must belong to a team), assign tasks to users in teams, update status, list tasks

Roles and Permissions

Admin - Create/update/delete any user, assign roles, view all data

Manager - Create tasks, assign to team, view team performance

Employee - View tasks assigned to them, log time, mark tasks complete

API Endpoints

API Service

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|-------------|-----------------------------|--|
| POST | <i>/api/register</i> | - Register new User (with role default EMPLOYEE) |
| POST | <i>/api/login</i> | - Login and receive JWT |
| POST | <i>/api/logout</i> | - Logout (invalidate token) |

User Service

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|------------|--------------------------------|---------------------------------|
| GET | <i>/users</i> | - Get own profile |
| GET | <i>/users/{id}</i> | - Get user by id (Admin only) |
| PUT | <i>/users/{id}/role</i> | - Update user role (Admin only) |

Team Service

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|-------------|---|---|
| POST | <i>/teams/</i> | - Create a team (Admin/Manager) |
| GET | <i>/teams/{id}</i> | - Get team info (Admin/Manager/member) |
| PUT | <i>/teams/{id}</i> | - Update team info (Admin/Manager) |
| DEL | <i>/teams/{id}</i> | - Delete team (Admin only) |
| POST | <i>/teams/{id}/users</i> | - Add user(s) to team (Admin/Manager) |
| DEL | <i>/user-teams/{id}/users/{userID}</i> | - Remove user from team (Admin/Manager) |
| GET | <i>/user-teams/{id}/users/{userID}</i> | - List team members |
| GET | <i>/user-teams/{id}/users</i> | - List team managers |
| GET | <i>/user-teams/{id}/teams</i> | - Get teams user belongs to |

Task Service

- | | | |
|-------------|------------------------------------|--|
| POST | <i>/tasks/</i> | - Create a task (Manager of the team) |
| GET | <i>/tasks/assigned</i> | - Get tasks assigned to logged-in user |
| GET | <i>/tasks/team/{teamId}</i> | - Get all tasks for a team (Manager/Admin) |
| PUT | <i>/tasks/{id}/status</i> | - Update task status (Assigned employee) |
| PUT | <i>/tasks/{id}/assign</i> | - Assign task to a user in team (Manager) |