

# ANKA Technologies (Pvt) Ltd

Research & Development Team | Kandy

## FULL-STACK DEVELOPMENT ASSIGNMENT

### *Personal Task & Time Tracker*

**Duration:** 5 days from receipt of this assignment

### Project Overview

Build a productivity application where users can create tasks, track time spent on them, and view their productivity analytics.

### Technical Requirements

#### Frontend

- ReactJS with TypeScript OR React-based frameworks.
- Clean, intuitive UI
- State management (Context API, Redux, Recoil or framework built-ins)

#### Backend

- Any Node.js framework with TypeScript (preferred: NestJS).
- RESTful API design.
- Proper error handling and validation.

#### Database

- **PostgreSQL** (preferred) or any compatible SQL-based DBMS.
- Well-structured schema.

#### Version Control

- Git with meaningful commit messages
- Clean repository structure

## Core Features (Required)

### 1. Authentication

- User registration
- User login/logout
- Protected routes

### 2. Task Management

- Create new tasks
- Edit existing tasks
- Delete tasks
- Mark tasks as complete/incomplete

### 3. Time Tracking

- Start/stop timer for any task
- Track total time spent on each task
- Display time in readable format

### 4. Dashboard

- List all tasks with their status and time spent
- Show productivity stats (tasks completed today, completed this week, total hours tracked today/week)

## Bonus Features (Optional - Show Your Skills!)

- Task categories or tags
- Filter and sort tasks (by date, status, time, category)
- Export data as CSV
- Data visualization (charts showing time distribution)
- Search functionality
- Task priority levels

## Evaluation Criteria

We'll be looking at:

- **Code Quality:** Clean, readable, well-organized code
- **TypeScript Usage:** Proper typing throughout the application
- **Database Design:** Efficient schema and relationships
- **API Structure:** RESTful principles, proper HTTP methods and status codes
- **UI/UX:** Intuitive interface and good user experience
- **Framework Knowledge:** Appropriate use of chosen framework features
- **Git Practices:** Meaningful commits and clear project history
- **Documentation:** Clear README with setup instructions
- **Functionality:** All core features working as expected

## Repository Requirements

Your repository/repositories must include:

### 1. README.md with:

- Project description
- Technologies used (specify framework/versions)
- Setup instructions (how to run locally)
- Environment variables needed
- Database setup steps
- API endpoints documentation

### 2. Public repository

(Make sure it's not private!)

## Deadline

Submit within **5 days** of receiving this assignment.

## Questions?

If you have any questions about the requirements or need clarification, feel free to reach out to [info@anka.lk](mailto:info@anka.lk) before you start coding.

**Good luck! We're excited to see what you build!**

*ANKA Technologies (Pvt) Ltd  
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