

# CVWO Riding on Rails

## Mid-Assignment Writeup

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### Structure

- **Tasks** are grouped into **Task Lists**
- **Task Lists** can be grouped into **List Groups**
- A **Task** can be assigned any number of **Tags**

## Use Cases

### Tasks

- Add task
- Delete task
- Update task properties
- Check or uncheck a task
- Filter tasks by title

### Tags

- Create tag
- Delete tag
- Set tag color
- Rename tag
- Add tag to task
- Remove tag from task
- Filter tasks by tags

### Task Lists

- Create task list
- Delete task list
- Rename task list
- View tasks in task list
- Move task to task list

### List Groups

- Create list group
- Delete list group
- Rename list group
- View task lists in list group
- Move task list to list group

## Tools

Language : TypeScript

Frontend : React

Backend : Ruby on Rails

Database : PostgreSQL

## Data

### Structure

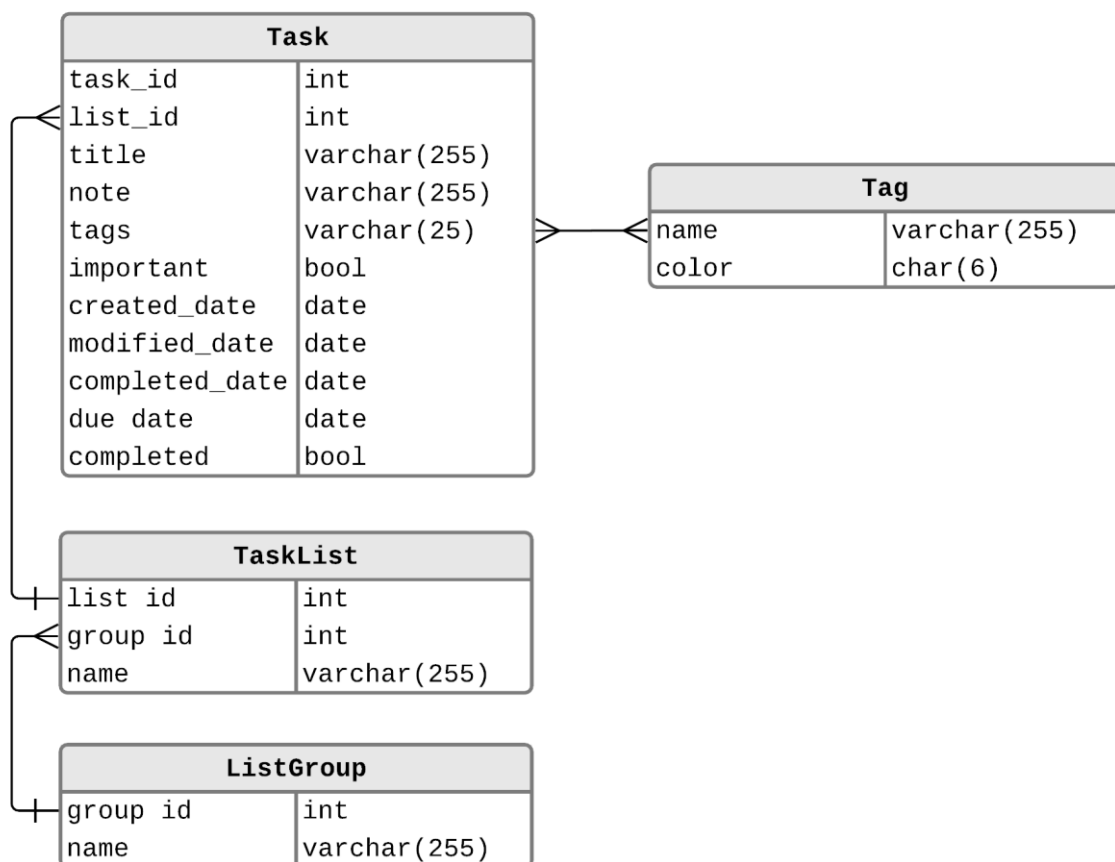
- **Tasks** are grouped into **Task Lists**
- **Task Lists** can be grouped into **List Groups**
- **Tasks** can be assigned any number of **Tags**

The user can update the following **Task** properties:

- Title
- Note
- Tags
- Importance
- Due Date

**Tags** can be assigned a color for better visualization

### Database Schema



# **Execution Plan**

## **Week 1: Preparation**

### **1 Jan – 5 Jan**

#### Required Learning

- TypeScript
- React
- Ruby on Rails
- PostgreSQL

#### Optional Learning

- Docker
- Redux

## **Week 2 & 3: Implementation**

### **6 Jan – 19 Jan**

#### Minimum Viable Product

- Database setup
- Core task management
- Search and tagging system
- Styling

#### Extra Features (Likely limited by time)

- App deployment with Heroku
- Responsive UI
- Reordering tasks, lists, and groups
- Keyboard shortcuts
- Sorting lists (by title, due date, etc.)
- Subtasks
- Light and dark modes
- Reminders (user notifications)
- Smart Lists (planned tasks, important tasks, etc.)
- Recurring tasks
- User accounts

## **Week 4: Finalization**

### **20 Jan – 25 Jan**

- Final writeup
- User manual
- Submission