Task Management System Documentation

Team 44

May 23, 2025

1. Setup Guide

1.1. Prerequisites

- AWS Account with access to IAM, Lambda, API Gateway, RDS, S3, DynamoDB, and Cognito.

- Node.js and npm installed locally.

- Serverless Framework installed globally.

- MySQL client and database setup script.

- A properly structured project with environment variables defined in a .env file.

1.2. Backend Deployment Steps

1. **Configure AWS credentials:** Run `aws configure` and enter your Access Key, Secret, and region.

2. **Set environment variables:** Create a .env file with necessary keys (DB credentials, region, S3 bucket, etc.).

3. **Install dependencies:** Run `npm install` inside the backend folder.

4. **Deploy using Serverless:** Run `npx serverless deploy`.

5. **Create required AWS resources manually if needed:** S3 bucket, DynamoDB table, Cognito User Pool, and SQS Queue.

6. **Assign permissions:** Ensure Lambda functions have correct IAM roles to access S3, DynamoDB, RDS, and SQS.

7. **Monitor logs:** Use CloudWatch to monitor each Lambda function's behavior.

1.3. Frontend Setup

1. Host static files (HTML, CSS, JS) on any web server or S3 static hosting.

2. Update API URLs in the frontend code to point to your deployed API Gateway endpoints.

3. Ensure CORS is enabled in API Gateway for all resources.

2. User Manual

2.1. Overview

The Task Management System allows users to sign up, log in, create, update, delete, and list tasks, as well as upload attachments to tasks.

2.2. Signing Up

- Go to the sign-up page.

- Enter email and password.

- Check your email for the confirmation code and verify the account.

2.3. Logging In

- Enter your email and password on the login page.

- Upon successful login, you will be redirected to the task dashboard.

2.4. Managing Tasks

- **Create Task:** Fill the form with title, description, status, and optional due date.

- **View Tasks:** Task list is shown on the dashboard.

- **Update Task:** Edit the form and press update.

- **Delete Task:** Click delete to remove a task.

2.5. Uploading Attachments

- Select a task from the dropdown.

- Choose a file.

- Click upload to send the file to S3 via a signed URL.

2.6. Logging Out

- Click the "Sign Out" button to clear your session.