

## About Us

At thoughtctl. we work with potential businesses in developing custom enterprise products, applications, and mobile platforms that can ensure growth in the ever-changing tech landscape. From conceptualization to creation, we leverage our in-depth knowledge of the industry and technical capabilities to help businesses make the best out of emerging technologies. The mission of our team is to make our customers successful by developing applications to address their business needs.

## Our Mission

thoughtctl.'s mission is to deliver maximum business value to its customers by designing, developing, implementing, and maintaining efficient and high-quality software solutions aligned with their most essential business needs. Our values include client and employee satisfaction, social and business responsibility, on-going efforts to foster the development of healthy natural and business environments, as well as the use of industry's best practices to unleash the potential of our employees, remove communication barriers, create trust, and increase operational efficiency.

We use agile software development methodology to develop sophisticated and complex software based on our client's requirements.

As we embark on a journey to build a strong team of talented engineers, to help our highly demanding customer and their ever-growing business needs. We would like to work with talented engineers like you.

We are extremely thankful to you, for accepting to undertake this coding challenge, this coding challenge is very important for us to be able to judge your abilities and provide you an opportunity to get to know our standards and processes.

Aim of this coding challenge is three-fold

- Evaluate your coding abilities
- Judge your technical experience
- Understand how you design your solution

You will be scored on,

- coding standard, comments, and style
- unit testing strategy
- overall solution design
- appropriate use of source control

## The problem

You are tasked with creating a backend (server-less implementation) for a multi frontend application (you DO NOT have to create the frontend), this application manages tasks for an individual. Tasks are created by a team lead and assigned to team member, the application should be built on the AWS server less platform using API Gateway, AWS Lambda, DynamoDB

A task object should at least have following properties

1. ID
2. Title
3. Description
4. DateCreated
5. DateAssigned
6. DateCompleted
7. DateClosed
8. Status (Draft, Assigned, In-Progress, Completed, Closed)
9. CreatedBy
10. AssignedTo

Note: The application will be used by team members in different geography's

### List of API(s)

Method	Path	Description
POST	/task	Creates a task
PUT	/task/{taskId}	Updates a task
GET	/task/{taskId}	Gets a specific task
GET	/task/{memberId}	Get all tasks assigned to an individual
DELETE	/task/{taskId}	Deletes a task
PUT	/task/{taskId}/assign/{memberId}	Assigns a task to an individual
PUT	/task/{taskId}/accept	Updates the status to In-progress
PUT	/task/{taskId}/complete	Marks the task as completed
PUT	/task/{taskId}/close	Marks the task as closed

### Things to consider

1. A team member cannot create, assign, delete, or close a task
2. A task title cannot have special characters except # and \_
3. A task title should be > 3 and > 30 characters
4. A closed task cannot be changed

### Acceptance Criteria

- All the APIs should be testable using postman
- Good to have a deployed version of the APIs on AWS platform
- You can use any of IAC technologies, Good to have deployment scripts using AWS CDK
- Good to have some sort of authentication for the API

### You should provide us with

1. Working Code
2. Design of your application
3. Instructions / ReadMe on how to run your code
4. List of Assumptions made (if any)

