



Backend Take Home Test

Implement an API which will provide a rudimentary scheduling service. The service will provide endpoints to manage events such as meetings and manage users which will be the host of the meeting or a participant of the meeting.

- Create/Update/Delete an event for a single block of time in a day.
- Create/Update/Delete users that can host or participate in those events.
- Add participants to an event from the pool of available users.
- Query the list of events using the following criteria:
 - By participant or host user
 - By date range.
- Remove participants from an event.
- An event participant may be the host. There can only be a single host for an event.
- A participant can be marked as optional or required.
- A participant can indicate their intention to accept the invitation or decline the invitation.

Requirements

- Choose one of the following languages/frameworks: Node.js/Typescript, Python/Flask, PHP/Laravel, or Ruby on Rails. (While we encourage Node and Typescript, we will accept submissions using the framework of your choice.)
- Implement CRUD Endpoints for Events and Users.
- Implement the Events query endpoint using the filter specified above. This endpoint should have an option to return only top level events attributes or to additionally return the list of participants in the event. This endpoint must perform efficient database queries. (In other words, avoid n+1 queries)

- Add necessary validation for each endpoint.
- Add unit or feature tests for each endpoint.
- Use any database you like (including sqlite).
- Ensure that you include any build or compile scripts that are required for setup and running of the service.
- Provide a Readme file with instructions for how to set up and run the service as well as how to use each endpoint.
- Once you have completed the exercise, zip the contents of the project and email the zip file to us.
- You have five days from the time you receive this test to complete it. If you are unable or do not have the time to complete it, please send us as much as you can or let us know if you need more time.