

Redmenta Programming Practice Project

Frontend with backend

The aim of this practice project is to give an overview of your current development skills and seniority level.

The Project specification is divided into two parts: **frontend** and **backend**. (If you are willing to implement only one side, please implement the extra parts in brackets.)

The Project is **a basic simple choice worksheet with 3 example tasks**.

Please create **2 GitHub repositories**, one for backend and one for frontend. Invite my account ([merobal](#)) to the repos. Finally, deploy the finished project as described at the end of this PDF.

Backend and Database

Implement the following endpoints in PHP using **Laravel** (latest version). First, review the endpoints needed, then design the data structure for your own. Use MySQL for the database.

Use Laravel Models, Database Migrations, Seeds and properly designed Controllers. You may take a look at php artisan commands as well.

You may use Postman for testing the endpoints. (Backend-only: if you only implement the backend part of this project, please provide the Postman examples too, commit the JSON export to the repo.)

GET session token

Create an endpoint for generating a session token.

You may store the session tokens in a table (ID, token, timestamps).

This endpoint should return the token.

GET worksheet tasks

Create a model for worksheet tasks (and a model for task options), then manually insert 3 example tasks (seed).

Each task should have an ID, Instruction, 4 options, 1 option marked as good answer (and timestamps for each record). Please mind the foreign keys.

This endpoint should return the tasks and options as JSON.

POST worksheet task answer

Create an endpoint for storing task answers.

Send the Task ID as URL param in the route, the Option ID as body payload and session token as Bearer token in authorization header.

Each answer should store the selected task ID, option ID and session ID (not the token!).

You should create a new record for new answers and update the option ID when the record exists. You may use upsert logic.

This endpoint should return the result of this answer (selected option is good or wrong).

Frontend

Implement a nice UI for this Project. Use **react / TypeScript** and **Tailwind CSS** (latest version of each). Please focus on clean code and re-usable react components.

Implement the header line (menu bar). Feel free to re-use the Tailwind classes from Redmenta HTML source code to speed up your work. No menu items are needed. Our primary color is: **#FF5316**
Use this link for the logo: <https://cdn.redmenta.org/hotlink-ok/redmenta-logo.png>

GET session token

(Frontend-only: if you don't implement the backend part, skip this section.)

Use **axios** for API calls.

Call the get session token endpoint and store the token in session storage. If a token is present at the storage, use that one instead of calling the API.

GET worksheet tasks

Get the tasks from the backend. (Frontend-only: define the data structure as static JSON in a json file, then GET data from that file via axios. Or define the data as a const.)

Display the tasks on the UI. Please don't copy the design of Redmenta for this section, please design something on your own. *The design is not rated, feel free to implement a simple box, display the instruction and use some kind of rounded design for the options. But please mind the spacings.*

Hover and selected states should be displayed for the user.

POST worksheet task answer

When the user selects an option, call this endpoint. Send the task ID in the URL, the option ID in the body and the token in auth header as described at the backend part. (Frontend-only: store the selected answer in session storage, also write a logic for checking the answer.)

Display the result on the screen somehow. Examples: Checkmark / X next to the option, separated box below the options, different background colors, etc. Animations are welcome.

Deployment

Backend

Push the code to GitHub and **deploy the project to a server of your own (e.g. Heroku).**

(Backend-only: if you only implement the backend part of this project, please provide the Postman examples too, commit the JSON export to the repo.)

Frontend

Push the code to GitHub and **deploy the project to Netlify.**

Submission

Please invite my GitHub account (merobal) to the repos.

Please fill this form and provide the project links to us: <https://forms.gle/KXtS7YZJQPdMBj9>