



IZONE SOLUTIONS

LARAVEL DEVELOPER TECHNICAL TEST

Congratulations you have passed the first phase of the employment process of the iZone Solutions LLC Software development department.

As we have mentioned in the job description you are going to use the following technologies to complete this technical test:

- ❖ PHP 8.
- ❖ Laravel 8.
- ❖ Laravel Sanctum (REST API).
- ❖ Git (GitHub/GitLab).
- ❖ MySQL Database.
- ❖ POSTMAN to test your APIs.

You are asked to build a ticketing system that helps clients create a service for IT tickets and monitor their status.

Business logic

The users of the system are the admin and the clients.

You are responsible for creating the REST API for the listed tasks below:

- ✚ Admin can Create, update, delete, and view Clients.
- ✚ Admin can Create, update, delete, and view tickets.
- ✚ Admin can Create, update, delete, and view priorities.
- ✚ Admin can Create, update, delete, and view statuses.
- ✚ Admin can Create, update, delete, and view services and their categories.
- ✚ Admin can Create, update, delete, and view technicians.
- ✚ You must use bearer tokens for authentications.
- ✚ You must write clean code, well-designed architecture MVC, and handle exceptions.
- ✚ unauthenticated users can only view services and their categories.
- ✚ Authenticated users can create tickets.
- ✚ Authenticated users can evaluate their tickets if it's marked as complete.
- ✚ Admin must be able to retrieve technicians as pagination consists of 3 technicians per page.

- ✚ Admin must be able to filter tickets by creation date so make sure it is auto set once you have created the ticket.
- ✚ The Ticket life cycle will be updated according to the following rules:
 - Set the ticket`s status to pending if there is a client, service, and priority associated with it.
 - Set the ticket` status to active if the ticket has total working hours and technicians associated with it.
 - Set the ticket`s status to do if the ticket has a work report, work completion date, client`s notes, total cost, and client`s evaluation associated with it.
 - The ticket cost is calculated as the following:
 - $\text{Cost} = \text{service price} + \text{count of technicians} \times \text{the hour price of each technician} \times \text{priority value}.$
 - Cost will have a **discount** if the client`s evaluation by the satisfaction percentage of the evaluation value i.e. (bad = 50% discount of the total cost).

✚ **The model`s main attributes:**

- A Client has an ID, name, phone number (unique) used for login, and password, tickets.
- A Service has an ID, title, price, and category.
- A priority has an ID, title, and value i.e. (normal = 1, mid = 2, emergency =3).
- A Status has an ID and Title.
- An Evaluation has an ID, Title, and value.
- A technician has an ID, name, and hour cost.
- A ticket has an ID, client, priority, status, creation date, total working hours, technicians, work report, work completion date, client`s notes, client`s evaluation, total cost, and service.

✚ **You must deliver this task on 07/2/2023 by sending an email to mhd.kh@izone-me.com with the subject Laravel-Developer-{your name} contains the Postman collections of your REST API routing, documentation, and a link for the Git project.**

✚ **If you have any questions, please contact us using the below information:**

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iZone Solutions Team leader MHD KHAIR SULTAN.

Good Luck.