ALPHV Technologies Sdn Bhd. (1509526-V)
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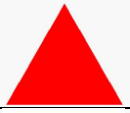
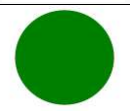
Internship Assignment (Tech Generalist – Web Focused)

Objective:
Build a web application with a front end user interface and back end API that allows admins to enter data that is displayed to users in a grid/table format.

This test will test your front end, back end, database skillsets.

Features:

- Admin Portal
  - Allows admins to add/edit/delete name, color, and shape data
  - Should have a simple UI with forms/inputs to capture this data
  - Validates all inputs before submitting data
  - Example input:
    - Name
    - Shape
    - Color
    - Timestamp
- User Portal
  - Displays a grid with columns for names, colors, and shapes
  - Grid updates in real-time as admins make changes in admin portal
  - Example output:

Timestamp	Name	**Shapecolor**
5:36:15 2022-03-26	Albert	
08:55:41 2023-07-12	Edison	
23:48:13 2021-12-31	Thomas	
04:21:30 2024-01-05	Melissa	

- Back End
  - REST API with endpoints for CRUD operations on data
  - Database to persist all data entered by admins
  - Business logic to return data to front end in desired format

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Tech Stack:

- Front End: Any FE framework you are comfortable with
- Back End: Any BE framework you are comfortable with (We use PHP Laravel & Python Django)
    - REST API, integrations & middleware
- Database: Any SQL database you are comfortable with (We use MySQL/PostgreSQL)
    - Schemas, models

What we are looking for:

- Well-architected application with separation of front and back end
- Good coding practices
- Extensible and maintainable code
- Use of modern frameworks and tools
- Functionality to meet requirements
- Descriptive comments, console logs for understanding flow

Bonus features (if you can implement): Authentication, Input validation, Error handling, Automated tests, Deployment to live

Deadline: 7 days

Please submit your coded solution along with clear instructions to run the app to daren@alphv.com. Comment your code clearly explaining your approach. Feel free to make assumptions for parts not specified.