Project Details

Nature

- **Must** provide clear instructions on how to run, test and review the whole application. Fail to do so will consider fail in the whole test

- To **fulfil all base requirements** stated with any technology related to web and mobile solution. Requirements can be partially fulfilled but must be clearly stated on what requirements has been done.

- Candidate **must communicate** with project owners with solution they are trying to build to see if it fits. They can propose what items can be done within the timeline and what cannot. Failing to do so will negatively impact candidate scoring.

- **Limit to web and mobile** based solutions only. Desktop solutions (Eg: Window based .exe) are not allowed

- Best if you can **utilised our stacks** and demonstrate your skills in our stack. All other stacks are welcome too.

Criteria

Our **judging criteria** is mainly based on the following. They are mainly **subjective** and we want to be **transparent** on how we judge your solution. We **don't have a minimum passing rate** (Eg: 50 pts to pass interview), rather, the **higher point** you get, the **higher chance** you are getting hired.

Items	Points
✅ Requirement fulfilment (How well did you fulfil the requirements stated)	50
💬 Communication and understanding of requirements (How did you communicate with us, how well did you understand the requirements)	40
💭 Logical thinking and problem solving skills (What solution did you propose? How well is your problem solving skills in term of solving user's problems)	30
👨‍💻 Quality of your code and robustness of you system (Is your code easy to read and maintainable? How well are you handling errors and making sure system doesn't break over exception?)	15
🪙 Completeness of solution (Does it have full frontend and backend integration? Does it integrate with database?)	10
🛠️ Utilising our stacks (FE: React, BE: Node.js, DB: MongoDB)	10
💫 Going beyond and creative (You impressed us well with your solution and the extra effort you put in making better user experience and solving more actual problems faced by sellers)	Varies (0 to 20)

Tips

- Choose the best tools that suit you to deliver the solution.
- Communicate constantly with us.
- We are Mac users. Make sure your solution is runnable in our environment too.

The Project

Background

A startup company has been selling their products in social media (such as Facebook, Instagram) and they have been recording their sales manually with Excel and papers. The nature of their business depends on sales person selling their products in campaign basis (such as Facebook Post, Facebook Live Video, Instagram Stories) and ever since their business growth, this manual work has created tremendous amount of problems in recording the accurate sales and paying out their sales person.

Request from the client

So right now, the owner has engaged us to build a custom software to track their sales person performance based on campaign and sales orders and will need to correctly record the payout for each of them. The below are the requirements we have captured so far based on her problems.

1. User Management

The system should have basic user management and authentication in place for 2 key roles. Each of them will have different view and functions when logging to the system.

- Admin
  - Basic fields such as Name, Username, Password
  - Able to view and manage users (1.User Management)
  - Able to view and manage campaign (2. Campaign)
  - Able to view and manage order (3. Order)
- Sales Person
  - Basic fields such as Name, Username, Password
  - Commission configuration will be done per sales person with a constraint of ≤ 100%
  - Able to view their commission payout amount by month and by breakdown by campaign (4. Commission Payout)

2. Campaign Management

- A Campaign is related to each post, event and live post done by the sales person. Each campaign can only be tied to one sales person when create and is not editable.
- Campaign must consists of the following key fields
  - Title (title of the campaign)
  - Social Media (Facebook and Instagram, select only one)
  - Type (Post, Event and Live Post, select only one)
  - URL (URL point to the post/event/live post)
  - Sales Person (Sales person that handle the campaign)
- All fields are editable except sales person
- Campaign can be deleted and all the commissions recorded for the sales person under this campaign will be deducted.
- Campaign can have zero or many sales orders.

3. Order Management

- An order must be created under a campaign. An order consists of the following key fields
  - Products (1 or Many)
    - Name
    - Quantity
    - Base Price
    - Total Price (Calculated from Quantity x Base Price)
  - Campaign (Campaign that close this sales order) (not able to change once assigned)
- Product is key in on demand for each order

- When an order is created, the commission to the sales person should be recorded based on the commission rate set by the time.
  - Eg: When order of RM100 is created, if the sales person has a commission rate of 10%, the commission for the order would be RM10. If the sales person commission increase to 15%, the commission of the order should be unchanged
- Order's products can be updated to new amount or name, add new products, delete products from the order. Every-time an order is updated, the commission amount will be recalculated for the particular order.
- When an order is being deleted, the commission amount for the order will be deducted from the sales person

4. Commission Payout

- Sales person is able to view their sales commission amount by month and year (Eg: 2022 Jan)