

BE interview - Technical practice

For this exercise you need to build two set of APIs:

- Admin APIs
- User APIs

You will also need to provide Database migrations for all the created tables to fulfil the business requirements.

We intentionally have left the requirements simple so you can show us how you will solve this problem.

It's up to you to decide what endpoints are needed and which HTTP methods to use. (GET, POST, UPDATE, DELETE and PATCH)

Admin APIs

The Admin APIs will be used to manage the company's inventory of Frames and Lenses.

Requirements:

- As an admin I want to be able to create frames that have:
 - Name : string
 - Description: text
 - Status: (Active, inactive)
 - Stock: integer
 - Price: float
- I also want to be able to create lenses that have:
 - Colour: string
 - Description: text
 - Prescription_type: (fashion, single_vision, varifocals)
 - Lens_type: (classic, blue_light, transition)
 - Stock: integer
 - Price: float
- Prices need to be unique per currency, for this exercise we want to support the following currencies:
 - USD
 - GBP
 - EUR
 - JOD
 - JPY

User APIs

The User APIs will give the user the ability to create glasses by picking one frame and one lens and then seeing a total price.

Requirements:

- As a user, I can see only active frames.
- As a user I can view all lenses.
- As a user I can create custom glasses by matching one frame with one lens and storing it in the shopping basket:
 - Price shown needs to be based on the user's currency.
 - If the user tries to create glasses while a frame or a lens is out of stock (stock = 0) the user will get an error saying that the frame or lens is out of stock.
- Whenever a user successfully creates glasses, stock of the frame and the lens is subtracted by 1.