MVM Mobile Engineer Take Home Test

Background:

As a Mobile engineer at Metaverse Magna, your expertise in building functional and accurate features that works cross-platform is crucial. We are building new products and we need efficient, correct and on time delivery. This is where you come in.

Our process involves planning out a feature, scoping this feature into tickets and going to a pre-implementation process that would include producing any designs that would be necessary. Every engineer gets an opportunity to see what we want to work on before we decide who will work on it. Basically, you can make inputs to projects before they are commissioned.

For this test, you'd be getting a less than ideal implementation plan. You get a project brief that was meant for our Frontend engineer, and you are expected to adapt it to a Flutter application. The features remain the same, but you do not have a mobile design. You should adapt the current design into a mobile screen and ensure all functionalities work properly. You also get full creative freedom, with a requirement to ensure all the basic features in the design work correctly.

Some tips

1. Review the Figma design carefully to understand how the app should work.
2. Use the Swagger link to test out all the APIs and understand how they work.
3. Structure your project properly by platform.
4. Focus on using a clean architecture.
5. Ensure your code is high quality. Avoid unnecessary implementations and keep things efficient.

How to submit

When you are done with the tasks, please create a public Github repository and add your code. In your README, provide a summary of your implementation. Then include the following:

1. A guide on how to generate a build (points for having a bash script for this).
2. A breakdown of what you've done and how to follow the code.
3. Link to Google Drive containing a demo of your app on Android and iOS (using an emulator is perfectly fine).
4. Ensure all the links are publicly accessible.

> 💡 The goal of this test isn't to see if you can build an app. We can already tell that by reviewing your application. This test is designed to evaluate your attention to detail, your problem solving skills and your creativity.

We hope you enjoy this exercise. Goodluck!

Project Brief on Breach

App Name: Breach

Design: https://www.figma.com/design/nusyrdnCnqeeT0RKY6ry5M/MVM-Breach-Test?node-id=1-3&p=f&t=CpARz9FzLQ4I03mu-0

Frontend Functionalities:

1. Register and Login using email and password.
2. List of posts from the backend.
3. Ability to filter posts based on categories (as it appears on the design).
4. A user selecting their topics of interest during onboarding.
5. The stream showing the most recent 5 events sent via websocket.

Backend Functionalities:

On completion, the product should support the following:

1. API for user registration using email and password.
2. API for users to login using email and password.
3. API to get all blog posts.
4. API to get all blog categories.
5. Ability to filter posts based on categories (as it appears on the design).
6. API to save user interests during onboarding.
7. Authenticated Web socket to stream news events on the dashboard.

Requirements and Constraints

1. Build the frontend using React.
2. Handle errors correctly and prompt users to take corrective actions.
3. Ensure the final product can handle multiple concurrent events without degrading.

Output from Developers

- Backend: https://breach-api.qa.mvm-tech.xyz/swagger/
- Web socket: wss://breach-api-ws.qa.mvm-tech.xyz