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Pentia Mobile | 2024

Development Task

Exploring React Native and Typescript

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The Brief

This task is meant for you to show us your skills in React Native and/or Typescript.

Please note, that you're **NOT** allowed to use Expo for this task.

Design

We value the native look and feel of both platforms. Follow the standard guidelines provided by Apple and Google.

Firebase

We expect that the task is developed using the Google Firebase platform.
You can find all relevant information on **https://firebase.google.com/**

Evaluation

The code should be placed on GitHub in an open repository for us to evaluate.
Please provide a screen recording of push functionality.

Questions?

Any technical questions can be asked to Gert Lavsen at gsl@pentia.dk
Other questions (deadline etc.) can be asked to Henrik Grove at hsg@pentia.dk

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Scoring

Based on your task a performance score is calculated, and will place you in one of the following categories:

Score	Level
0 – 27	Not Accepted
27 – 54	Junior
54 – 81	Intermediate
81 – 108	Senior
108 – 135	Expert

Score is calculated by evaluating the following areas:

Area	Description
Basic	Does the code compile?
Project Structure	How well is the project structured?
Code feel	How readable is the code?
Documentation	Is the code documented?
Architecture	What kind of architecture is used?
Separation of concerns	Is code separated into modules, models, repositories etc.?
Error Handling	Does the code handle error and exceptions?

Git Usage	Does the git log reflect the code changes?
Language features	How well are features of the chosen language used?
Dependencies	We endorse the use of dependencies where applicate
Task Requirements	Are the task requirements implemented?

Tasks

The project that you are going to implement will be based on Firebase.

It's a simple chat application that includes login functionality and the possibility to join some predefined chat rooms. When joining a room, the last 50 messages should be loaded, and then new messages should be added automatically as they come in.

The following task list gives a brief overview:

1. Splash screen
2. Login screen
3. Chat rooms
4. Open chat room
5. Send and receive messages
6. Push functionality

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1. Splash screen

As a user I would like a nice and clean splash screen while the application loads.

Acceptance testing

1. Splash loads while the application is loading up
2. When finish next screen should fade in

   a. If you are logged in, go to Chat rooms
   b. If you are not logged in, go to Login screen

2. Login screen

As a user I would like to be able to login using my social login accounts.

Acceptance testing

1. Add two sign in methods

   a. Facebook
   b. Google

2. When signed in, i go to Chat rooms
3. If error happens, user is shown a dialogue

3. Chat rooms

As a user I would like to be shown a list of available rooms. The list is sorted by newest message.

Acceptance testing

1. A list is shown with the name and a short description of each room
2. Each row have a chevron icon to the right indicating I can press
3. The list is sorted by newest message
4. I can "pull to refresh" to reload the list
5. Pressing a room takes me to the "send and receive" screen

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4. Send and receive messages

As a user I would like to be able to send and receive messages inside a chat room.

Acceptance testing

1. Last 50 messages is loaded when chat room is opened
2. Scroll to load more messages
3. When a message is received it is automatically added to the list

4. An input field at the bottom of the view should be shown
    a. When pressed the keyboard opens
    b. When message entered and user presses "Send" / "Enter" the message is sent and added to the list

5. A message consists of
    a. Avatar of sender
    b. Name of sender
    c. Message date
    d. Message text

5. Push functionality

As a user I would like to receive a push message when a new message is added to a room, that I have participated in.

Acceptance testing

1. When i write a message inside a room, then i am asked if i want to have notifications from that particular room
2. Every time someone writes a message in the room, a push message is sent to me
3. When the user presses a push message, he or she should be taken directly to the room/message (using deep links).

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6. Upload of images to chat room

As a user I would like to be able to upload an image to a chat room.

Acceptance testing

1. I can upload image from camera
2. I can upload image from phone gallery
3. Image is shown in the chat room in the same flow as messages

In general

If there is something you are NOT able to do. E.g. meet a deadline or do a task, please do not hesitate to contact us to start a dialogue.

#BeAwesome

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