

The Snack App - Online Homework Assignment

Introduction

Thanks for your interest in Zonar Systems! We're looking forward to getting to know you better. From this point forward, expect a two part interview process:

1. You will be issued a homework assignment that you will complete on your own at home given the instructions below, which consists of creating an Android app that satisfies the following requirements. We will assess that homework and make the decision about proceeding to the final round.
2. A full team final round interview, including homework review with team devs, non-homework technical questions, and screens with the team TPM and testing specialist. Expect this to take a bit more than half a day.

This homework assignment will be circulated to all your potential peers in the Mobile Platform team. It's their first introduction to your work. Please provide clean, release-ready code. For homework purposes, testing is nice-to-have.

Don't rush yourself. This isn't meant to take more than an evening or two. If you find yourself short on time, remember that triage is part of development. It's better to do a great job completing one high-priority use case than to do a so-so job of all the use cases. If you don't get to all the use cases, be sure you've coded in such a way that the lower-priority cases could be added in future.

It's OK to not do everything. Triage well. Fully deliver the things you do deliver. Be ready to speak to your decisions and their extensibility.

Remember to think completely! Your goal is to deliver an app that serves use cases, which may require something beyond the letter of the case steps. Reach out to the hiring manager if you have questions.

Homework Assignment: Android

Imagine that you work for SnackTruck, which runs food trucks that sell a selection of snacks. Instead of having customers form one line, SnackTruck wants to have a pool of phones and tablets each truck can pass around. That way, multiple people can order snacks at once. Your job is to write the app that will go on those order-taking devices. This app will present a list of snacks which can be veggies [text in green color] or non-veggies [text in red color] with a checkbox:

French-fries []

Milk-shake []

Chicken-burger []

Veggie-burger []

Priority One Use Case

The customer should be able to select snacks from the list, and submit orders.

1. A user can select a set of snacks.
1. Pressing a Submit button at the bottom of the UI will finish the order and show the summary (a list of selected snacks) in a dialog.
1. Once the order summary dialog is dismissed, all selections will return to default, preparing the app for the next order.

Note: The network service for actually placing the order isn't built yet, so just put a stub & comment where you'd put the call to send the order.

Priority Two Use Case

The customer should be able to filter the snack list by snack type.

1. There will be two checkboxes at the top of the app, Veggies and Non-Veggies. Both are checked by default.
1. When the Veggies checkbox is checked, Veggie snacks are shown in the main list. When the Veggies checkbox is unchecked, Veggie snacks aren't shown. Same for Non-Veggie.
1. All requirements of the priority 1 use case are met.

Priority Three Use Case

The truck operator should be able to add more snacks to the list.

1. There must be an "add" action in the action bar at the top of the app
1. When a user selects the "add" action, a dialog is displayed.

1. The dialog should have a toggle for veggie/non-veggie, and a text field to enter the new snack name
1. The dialog should have “Save” and “Cancel” buttons.
1. When the user hits “Save”, the dialog is dismissed, and the user’s new snack is added to the list.
1. When the user hits “Cancel”, the dialog is dismissed.

Note: Using the app both for menu editing and for customer ordering presents a problem. The spec doesn't call for any mechanism to distinguish an operator, who may both order things and edit the menu, from a customer, who may only order things. For bonus points, propose a design change that would allow the app to serve both users. No need to code that, just speak to it.

Full list of starting snacks:

Veggie

French fries

Veggieburger

Carrots

Apple

Banana

Milkshake

Non-veggie

Cheeseburger

Hamburger

Hot dog

Mock up

Title	Add Button
<input checked="" type="checkbox"/> Veggie	<input checked="" type="checkbox"/> Non-Veggie
<div><input type="checkbox"/> Cheeseburger</div> <div><input type="checkbox"/> Veggieburger</div> <div><input type="checkbox"/> Carrots</div> <div><input type="checkbox"/> Apple</div> <div><input type="checkbox"/> Banana</div> <div><input type="checkbox"/> Hot dog</div>	
<div>Submit Button</div>	

Please check your code into a publicly-accessible Git repo.

Documentation and testing are up to you. A brief discussion of what libraries you are using and why is appreciated!

If there is anything that you would like clarification on, please feel free to reach out to us.

We look forward to seeing your awesome work!