How to Use this Template

1. Make a copy [File → Make a copy...]
2. Rename this file: "**Capstone_Stage1**"
3. Replace the text in green

Submission Instructions

1. After you've completed all the sections, download this document as a PDF [File → Download as PDF]
2. Create a new GitHub repo for the capstone. Name it "**Capstone Project**"
3. Add this document to your repo. Make sure it's named "**Capstone_Stage1.pdf**"

GitHub Username: dangkhoa0303

Restaurant

Description

Use Restaurant app to easily get plenty of information of the best restaurants within 1km from your location and add your own favorite restaurant whenever you like.

Intended User

This app is for people who want to find the highest ranked restaurants. Especially, this app is only for users whose locations are supported by Zomato api.

Features

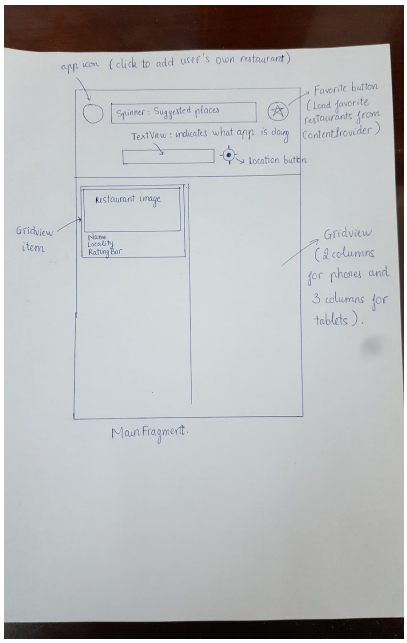
App features:

- + Detect your location accurately
- + Automatically find top 20 restaurants with highest rating (based on number of votes) that are within 1lm from your location
- + Suggest places for more restaurants
- + Save your favorite restaurants offline
- + Add your own favorite restaurant

User Interface Mocks

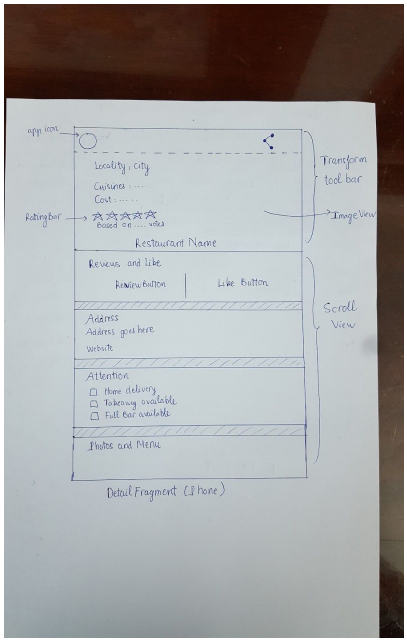
These can be created by hand (take a photo of your drawings and insert them in this flow), or using a program like Photoshop or Balsamiq.

Screen 1



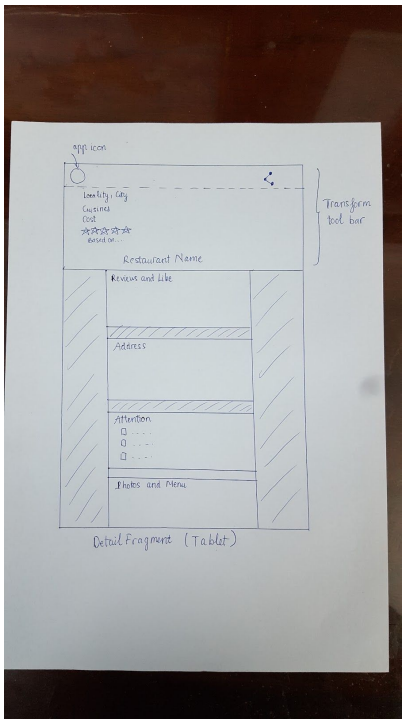
MainFragment is responsible for loading data to gridview in 3 modes: location request mode, suggested mode and favorite mode. Gridview has 2 columns on phones and 3 columns on Tablets (sw600dp).

Screen 2 (Phone)



DetailFragment: Display full information for restaurant. This UI uses transform tool bar with the background is the restaurant's image with alpha < 1.0

Screen 2 (Tablet)



DetailFragment: Display full information for restaurant. This UI uses transform tool bar with the background is the restaurant's image with alpha < 1.0. Margin left and right in order to avoid too much white space on large screen.

Key Considerations

How will your app handle data persistence?

This app loads data from zomato and populates the UI and does not save data offline. However, when user presses button "Like" or "App Icon"-with function Add, this app will save data in database (implemented ContentProvider).

Describe any corner cases in the UX.

This app has two activities: MainActivity and DetailActivity. In DetailActivity, user can go back to MainActivity by pressing standard support back button.

Describe any libraries you'll be using and share your reasoning for including them.

Libraries in use:

+ Picasso: load image from internet using Url to ImageView and handle error on loading.
+ Android support design version 23.3.0: create material design in UI

Next Steps: Required Tasks

This is the section where you can take the main features of your app (declared above) and decompose them into tangible technical tasks that you can complete incrementally until you have a finished app.

Task 1: Project Setup

Find information about apis used in app (Zomato api and Google api) and create new project with the newest version of Android Studio.

_ Zomato api:

+ Get Zomato api key
+ Read through documentation to understand how to request json
+ Choosing the most suitable request for this app: search restaurant

_ Create new project with the newest version of Android Studio:

- + Add Picasso library in gradle
- + Add android support design version 23.3.0 in gradle
- + Define attributes and permissions in manifest file for using Internet, Google api location and Google Ads Mob

Task 2: Implement UI for Each Activity and Fragment

_ Build UI for MainActivity (mostly stay inchanged)
_ Build UI for MainFragment
- + Build list_item for gridview in MainFragment

_ Build UI for DetailActivity (mostly stay unchanged)
- + Using Android Asset Studio to create icons for UI

_ Build UI for DetailFragment
- + Build button selector for each button appears in this UI

Task 3: Your Next Task

_ Implement Google Ai Client to get user's location (Handle permission allowed in android M)
_ Fetch data from Zomato api using user's location.
- + Implement property class which holds all information about a specific Restaurant
- + Implement IntentService to request json
- + Implement Adapter to load data

_ Populate gridview with data got from service.
_ Set onClick for gridview items to move to DetailActivity.
- + Sending data from MainFragment to DetailActivity

Task 4: Your Next Task

_ Handle errors
- + Prevent requesting location when the app is resumed
- + Only request for location on the first time the app is launched and when user wants to do that
- + When user's location is not supported for restaurants by Zomato, add some places to suggest user to prevent blank activity. Use spinner to store suggested places
- + Update UI correctly with multiple modes: location request mode (load restaurants available when user's location is supported), suggested mode (when user chooses suggested places, gridview shows exactly restaurants available in those places) and favorite mode (gridview shows restaurants in ContentProvider)

_ Implement Database and ContentProvider to store favorite restaurants

_ Implement function for favorite button: load data from ContentProvider and populate gridview in MainFragment using ContentResolver

+ Implement CursorLoader for adapter that is responsible for populating data to gridview

Task 5: Your Next Task

_ Implement widget for this app to display favorite restaurants for user in home screen.
_ Implement function add - allow user to add their own restaurant
_ Implement Google Ads Mob (consider)

Add as many tasks as you need to complete your app.

Submission Instructions

1. After you've completed all the sections, download this document as a PDF [File → Download as PDF]
2. Create a new GitHub repo for the capstone. Name it "**Capstone Project**"
3. Add this document to your repo. Make sure it's named "**Capstone_Stage1.pdf**"