Project Name: Who Built That?
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Application Concept: Use firebase to store business information. Preload firebase with relevant information. Query information using firebase REST API and JSONs. The App will be used to show who built what, and who owns what.

Structure: We don't need any authentication or user account creation. Firebase will just be used to store information relating to businesses. This will come in the form of a company name string, a business owner string, and child nodes that will store a company name and business owner. The graph will essentially have a parent node for every company and if that company has any subsidiaries, it will be conveyed with children nodes. [*Subject to change. Could be list of strings*.] We can pre-load the database with csv files available online. We would need to do some data processing beforehand to only retrieve the business name and owner name. After that, we would need to create another table that has business name and subsidiaries. After that, we join the two tables.
Networking will be an important part of the project. We will be using JSON to send and receive data from the DB. Searches will take the following form: `curl 'https://[PROJECT_ID].firebaseio.com/users/jack/name.json'`
We also need permissions to open network sockets: <uses-permission android:name="android.permission.INTERNET" />. The usage process is as follows: get an HttpURLConnection, prepare your request, optionally, upload a request body, read the response, disconnect.

Key Functionality: Allows the user to enter a brand / company name and the application will show them the company's annual revenue, estimated employee count, direct owners, its location on a map, and its subsidiaries. The user can also choose to sort the subsidiaries by ascending or descending order and limit the amount of subsidiaries shown after the search.

Architecture and System Components: Some android system components we are going to use from previous assignments are EditTexts, RadioButtons/RadioGroups, Sliders, Options Menu, Maps, Fragments,
We will be using the Firebase Realtime Database to store all the company information. An example data class for a company in the database is shown below:

data class Company (val compName: String="", val owners: List<String> = listOf(""), val subsidiaries: List<String> = listOf(""))

[*Subject to change if we use child implementation for subsidiaries*]

Resources: Reading and writing to firebase. Working with lists. Database API.
Business Owners Dataset

Contribution Plan:
Matthew Wong: Firebase and kotlin integration + networking and general UI/layout
Nikita Sharshakov: Creating firebase DB, formatting data, importing, and app UI/layout

Storyboard: