



# NYC Subway Entrances Project

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## ➡ The Ask

- Create an `Activity` (Java or Kotlin) called `SubwayEntrances` in the provided Android Studio project (*details below*)
- The purpose of this activity is to show the full list of NYC Subway Entrances to the user. For each subway entrance, following information should be visible to the user:
  - Name of the station
  - Coordinates (Latitude and Longitude)
  - Lines available at the station. For example: `2, 3, A, C, J`
- User should have the ability to filter the list by specific line provided at the station. Example: click on `2` to only see the stations that support line 2
- **UI styles, colors and look/feel of the app is NOT important. The purpose of this exercise is to demonstrate how large chunk of data is processed and utilized while providing a good performance of the application.**
- The `drawable` folder within the project contains an example of what this screen could look like - see `screen_example.jpg` file. **Please note that you do not have to use this layout. Any layout that meets the requirements listed above will be accepted.**
- Execute the endpoint below to get the list of all possible subway entrances.
  - URL: `https://ds-test.riproad.com/RRUtils/subwayEntrances/nyc`
  - HTTP Method: `POST`
  - Body ( `json` ):
    - `timestamp` — the value of this parameter must be the current timestamp in milliseconds
    - Example:

```
{
  "timestamp": 1604466000000
}
```

- An example of endpoint response body is shown here, where the
  - NAME is index of 10 and
  - LINE is index of 12
  - The index value can change in the columns . So the logic should be to
    - Find index values in columns where fieldName is
      - name for the station name,
      - the\_geom for coordinates and
      - line for subway lines
    - Use those index values to get the data from within the data array

```
{
  "columns": [
    {
      "index": 10,
      "name": "NAME",
      "fieldName": "name"
    },
    {
      "index": 12,
      "name": "LINE",
      "fieldName": "line"
    }
  ],
  "data": [
    [
      "row-dyc7~txm7~3t7a",
      "00000000-0000-0000-FB67-19FB7DFC798D",
      0.0,
      1.483630794E9,
      null,
      1.483630794E9,
      null,
      "{ }",
      "1734",
      "http://web.mta.info/nyct/service/",
      "Birchall Ave & Sagamore St at NW corner", // name
      "POINT (-73.86835600032798 40.84916900104506)", // coordinates
      "2-5" // lines
    ],
    ...
  ]
}
```

## ➡ Download Project

- Download the Git project from <https://gitlab.riroad.com/subway-entrances/subway-entrances-cvansco.git>
- This project contains one `Activity` — `MainActivity` with a single button on it
- `SubwayEntrances` activity should be launched when user taps on that button

## ➡ Submission Instructions

- Commit & push your changes to the Git project