**Cloud Infrastructure Architecture (+ External APIs):**

**AWS Amplify:**

**Amazon API Gateway:**

**(Endpoints)  
  
AWS Lambda:**

* **neighbourhood service score lambda: Inputs a user id from the user database table, and it retrieves the user weights, it returns a json object of the update nearby service scores.**
* **Cosine similarity lambda that inputs a user id, takes that users click data, compares it to all the other users click data, and finds the most similar patterns, it returns a json object of the the 10 most clicked on properties from those 10 patterns.**

**EC2 (Ubuntu):**

* **Contains Nginx Web Server**
* **Gunicorn Flask App**
* **SSL Certificates for secure connection with web server (Free from letsEncrypt).**
* **KnnJobLib package for recommender system.**
* **Connects to Route58 (Domain Name subscribed to SSL)**

**RDS:**

* **Contains Tables**
  + **Addresses**
  + **ApartmentBuildings**
  + **Banks**
  + **Bars**
  + **BeautySalons**
  + **BusStations**
  + **Cafes**
  + **FireStations**
  + **Gyms**
  + **Hospitals**
  + **MainInformation**
  + **Neighbourhoods**
  + **NightClubs**
  + **Parks**
  + **Pharmacies**
  + **PoliceStations**
  + **PriceHistory**
  + **PropertyDetails**
  + **Restaurants**
  + **Schools**
  + **Supermarkets**
  + **Tagstable**
  + **Trainstations**
  + **TransitStations**
  + **Unit**
  + **crime\_z\_scores**
  + **fees**
  + **images**
  + **property\_details\_extra**
  + **service\_scores**
  + **temp\_table**
  + **user**
  + **user\_feedbacks**
  + **user\_interactions**