INVESTMENT CANDIDATE IN SEOUL
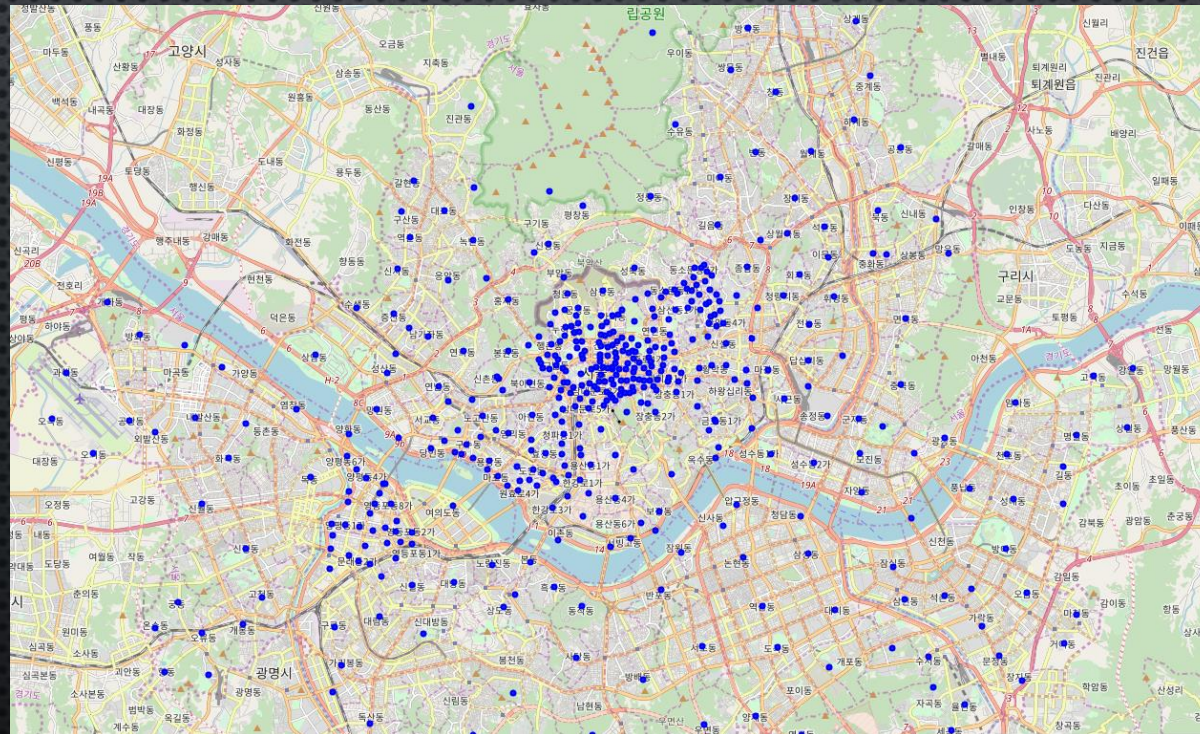
Ki Hoon Kwon

REAL PROPERTY INVEST CANDIDATE

- SIMILAR CHARACTERISTICS WITH EXPENSIVE AREA
  - EXPECT FUTURE VALUE INCREASE

- CURRENTLY UNDER-ESTIMATED AREA
  - RELATIVELY CHEAP LAND PRICE THAN OTHER NEIGHBORHOODS

NEIGHBORHOODS IN SEOUL

- 25 DISTRICTS AND 467 NEIGHBORHOODS

DATA ACQUISITION

- GEOSPATIAL COORDINATION OF NEIGHBORHOODS IN SEOUL (HTTP://DATA.SEOUL.GO.KR/DATALIST/OA-13221/S/1/DATASETVIEW.DO)

  - CSV FILE CONTAINS NEIGHBORHOOD'S CODE(읍면동코드) AND NAME(읍면동명), LATITUDES(위도) AND LONGITUDES(경도).

- THE ANNUAL STANDARD LAND PRICE OF SEOUL (HTTP://DATA.SEOUL.GO.KR/DATALIST/OA-1180/F/1/DATASETVIEW.DO)

  - XLS FILE CONTAINS DISTRICT'S NAME(SIGUNGU_NM) AND CODE(SGG_CD) AND NEIGHBORHOOD'S NAME(BJDONG_NAME) AND CODE(BJDONG_CD) AND STANDARD PRICE(JIGA) OF EACH ADDRESS.

- VENUES OF EACH NEIGHBORHOOD OF SEOUL OBTAINED VIA FOURSQUARE API

ELIMINATE OUTLIERS

- JONGNO-GU AND JUNG-GU
  - DOWNTOWN
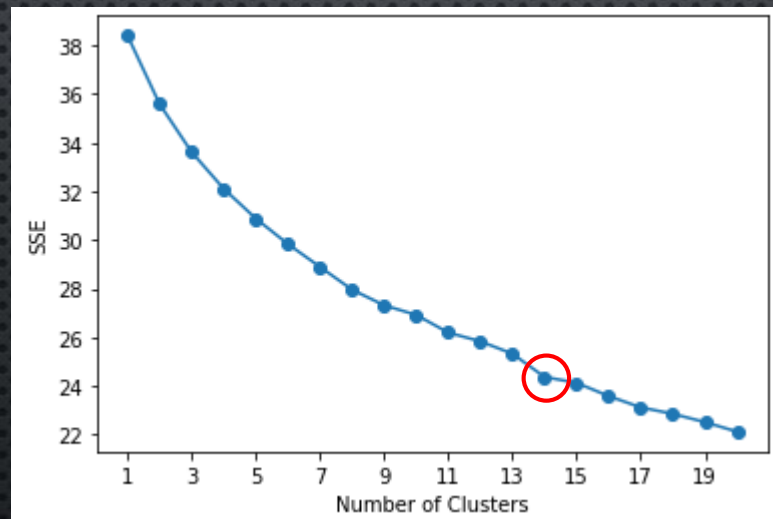 - VERY EXPENSIVE AREA
  - GEOGRAPHICAL LOCATION
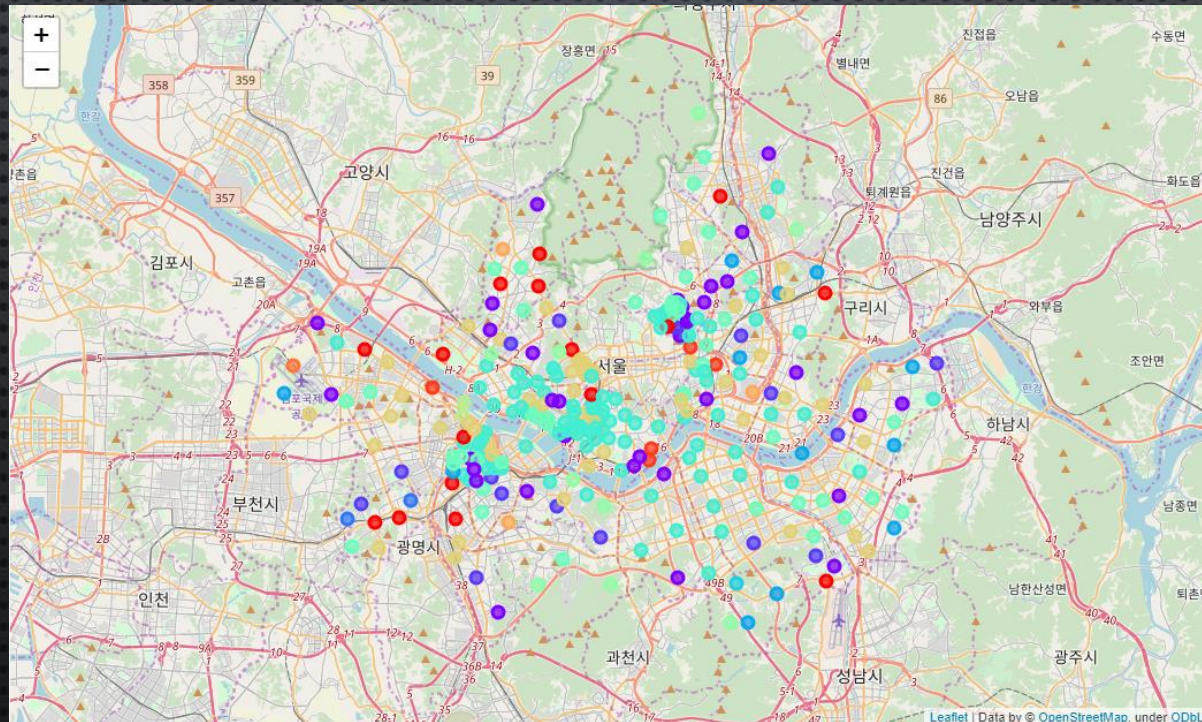   - CENTER OF SEOUL
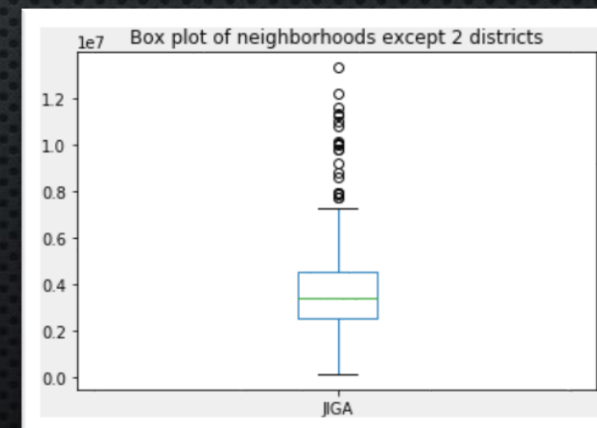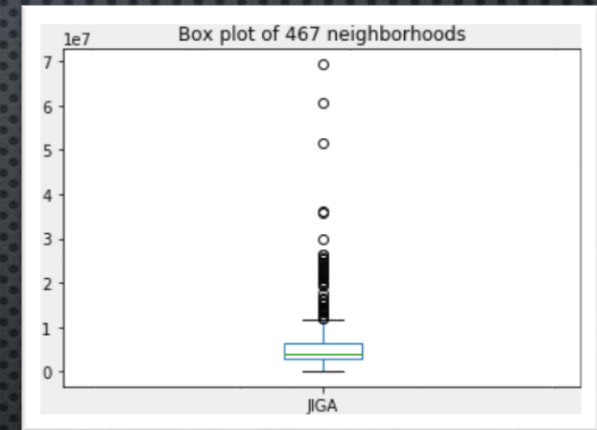
AVERAGE LAND PRICE WITHOUT DOWNTOWN
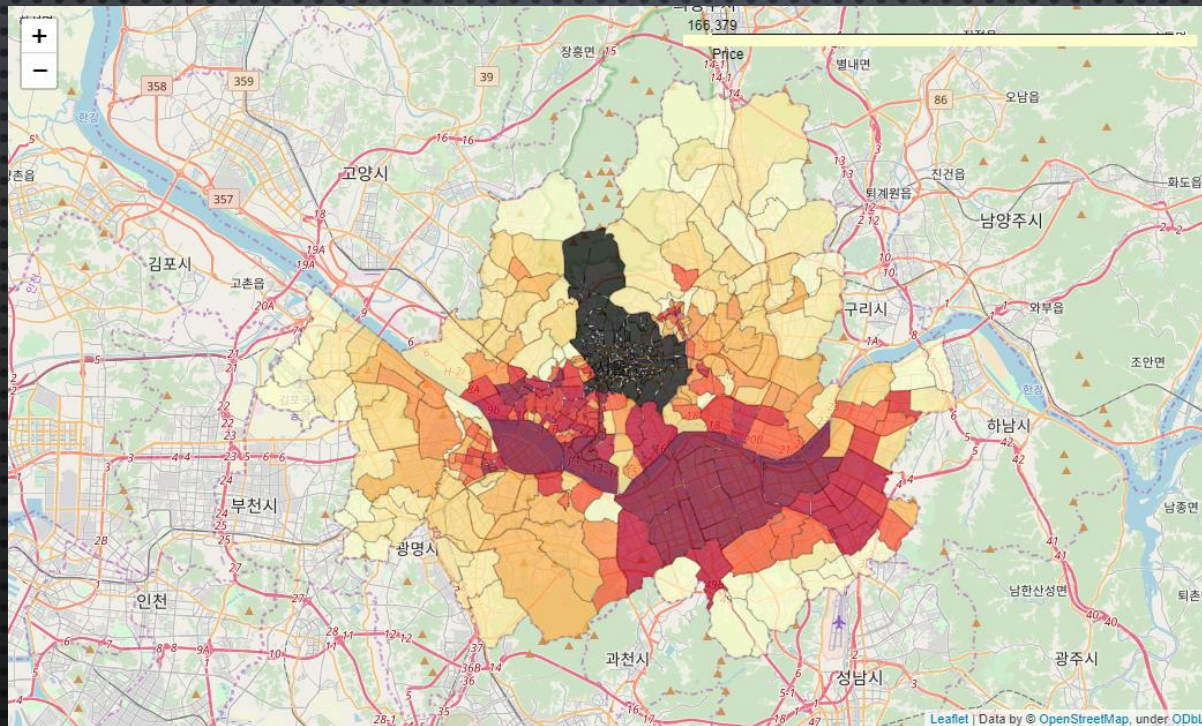
K-MEANS CLUSTERING
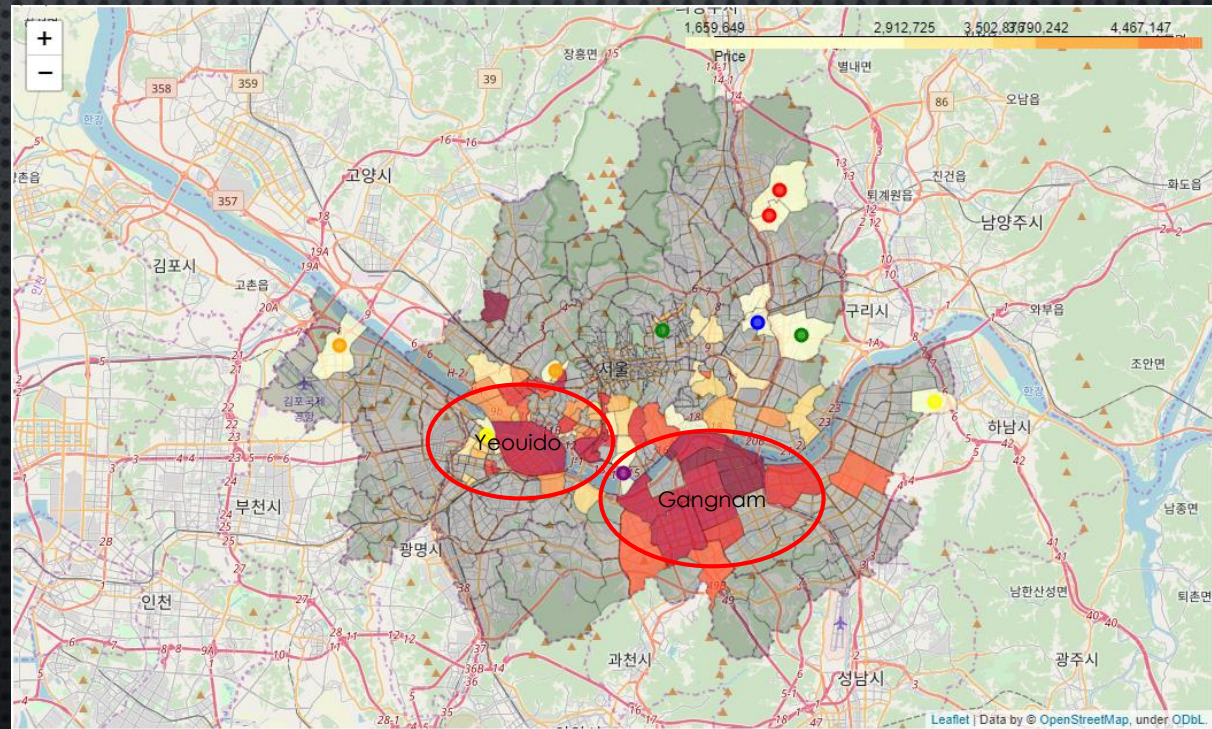
- Elbow test for finding number of clusters

RESULT OF K-MEANS ALGORITHM

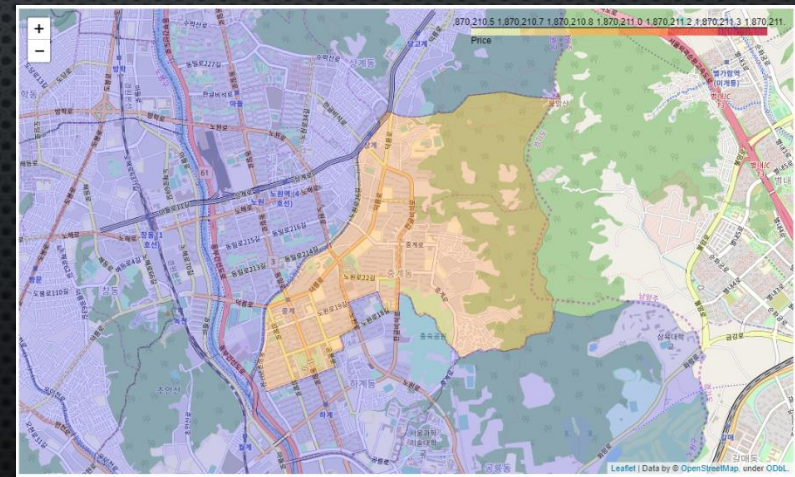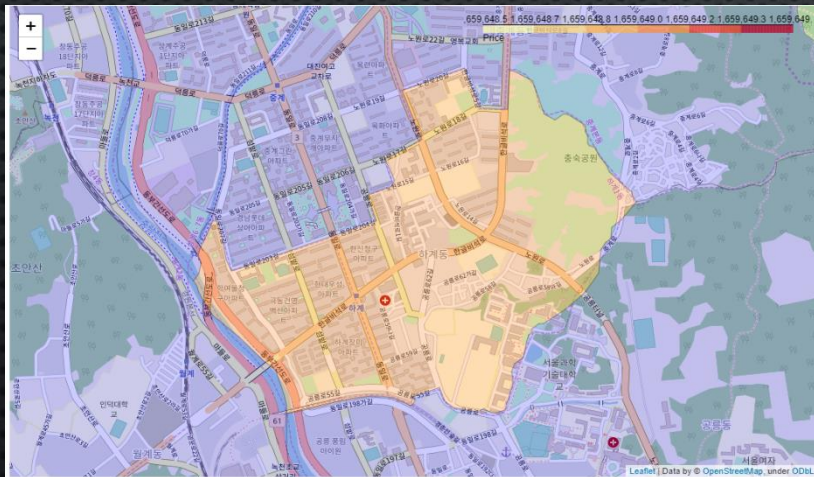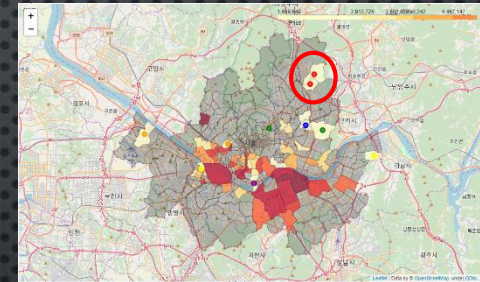# MOST EXPENSIVE CLUSTER

- GANGNAM
- YEOUIDO

- OTHER AREA?

MOST UNDER-ESTIMATED AREA IN THE CLUSTER

- HAGYE-DONG AND JUNGGYE-DONG

  - NORTHEASTERN PART OF SEOUL

  - WELL-BALANCED AREA : RESIDENTIAL, COMMERCIAL, PARKS, SCHOOLS, ETC.

CONCLUSION

- USED K-MEANS ALGORITHM TO GROUP SIMILAR NEIGHBORHOODS

- FIND CURRENTLY UNDER-VALUED NEIGHBORHOODS IN MOST EXPENSIVE CLUSTER
  - POTENTIAL FOR INCREASE OF PRICE

- IN REAL WORLD, WE SHOULD CONSIDER MORE FEATURES
  - LOCATION, PUBLIC TRANSPORTATION, EDUCATION, ETC.