Task 3: Neighbourhoods

Data wrangling: part 1

```
income <- nbhood_profile %>%
  filter(Topic == 'Low income in 2015', Characteristic == '  18 to 64 years (%)') %>%
  filter(`_id` == 1143) %>%
  pivot_longer(-c(`_id`, Topic, `Data Source`, Characteristic, Category),
               names_to = 'neighbourhood_name',
               values_to = 'Low_Income_Count') %>%
  select(-1:-5) %>%
  mutate(Low_Income_Count = parse_number(Low_Income_Count))
```

Data wrangling: part 2

```
nbhoods_all <- nbhoods_shape_raw %>%
  mutate(neighbourhood_name = str_remove(AREA_NAME,"\\s\\(\\d+\\)$")) %>%
  mutate(neighbourhood_name = str_replace(neighbourhood_name, "St.James Town",
                                          "St. James Town"))%>%
  mutate(neighbourhood_name= str_replace(neighbourhood_name,
                                         "Weston-Pellam Park",
                                         "Weston-Pelham Park")) %>%
  left_join(income, by = 'neighbourhood_name') %>%
  left_join(nbhood_raw, by= 'neighbourhood_name') %>%
  mutate(rate_per_100000 = rate_per_100_000_people) %>%
  select(-23)
```

Data wrangling: part 3

```
nbhood_final <- nbhoods_all %>%
  mutate(med_inc = median(Low_Income_Count), med_rate = median(rate_per_100000)) %>%
  group_by(AREA_NAME) %>%
  mutate(nbhood_type = case_when(
        (Low_Income_Count >= med_inc& rate_per_100000 >= med_rate) ~
          'Higher low income rate, higher case rate',
        (Low_Income_Count >= med_inc& rate_per_100000 < med_rate) ~
          'Higher low income rate, lower case rate',
        (Low_Income_Count < med_inc& rate_per_100000 >= med_rate) ~
          'Lower low income rate, higher case rate',
        (Low_Income_Count < med_inc& rate_per_100000 < med_rate) ~
          'Lower low income rate, lower case rate'))
```