Task 3: Neighbourhoods

Data wrangling: part 1

```
income <- nbhood_profile %>%
  filter(Category == "Income") %>%
  filter(str_detect(Topic, "Low")) %>%
  filter(str_detect(Characteristic, "18 to 64")) %>%
  filter(str_detect(Characteristic, "%")) %>%
  filter(`_id` == 1143) %>%

  select(-c(1,2,3,4,5)) %>%
  pivot_longer(everything(), names_to = "neighbourhood", values_to = "low_income") %>%
  mutate(low_income = parse_number(low_income))
```

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, "Pellam", "Pelham")) %>%
  mutate(neighbourhood_name = str_replace(neighbourhood_name, "St.James", "St. James")) %>%
  left_join(nbhood_raw, by = "neighbourhood_name") %>%
  left_join(income, by = c("neighbourhood_name" = "neighbourhood"))

colnames(nbhoods_all)[21] = "rate_per_100000"
```

Data wrangling: part 3

```
med_inc = median(nbhoods_all$low_income)
med_rate = median(nbhoods_all$rate_per_100000)

nbhoods_final <- nbhoods_all %>%
  mutate(nbhood_type = case_when(
    low_income >= med_inc & rate_per_100000 >= med_rate ~ "Higher low income rate, higher case rate",
    low_income >= med_inc & rate_per_100000 < med_rate ~ "Higher low income rate, lower case rate",
    low_income < med_inc & rate_per_100000 >= med_rate ~ "Lower low income rate, higher case rate",
    TRUE ~ "Lower low income rate, lower case rate"
  ))
```