

# Assignment 1

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```
# Installing necessary package(s)
# Installing necessary package(s)
install.packages("ggplot2")

## Installing package into '/cloud/lib/x86_64-pc-linux-gnu-library/4.5'
## (as 'lib' is unspecified)
install.packages("scales")

## Installing package into '/cloud/lib/x86_64-pc-linux-gnu-library/4.5'
## (as 'lib' is unspecified)
library(ggplot2)
library(scales)
```

## Dataset

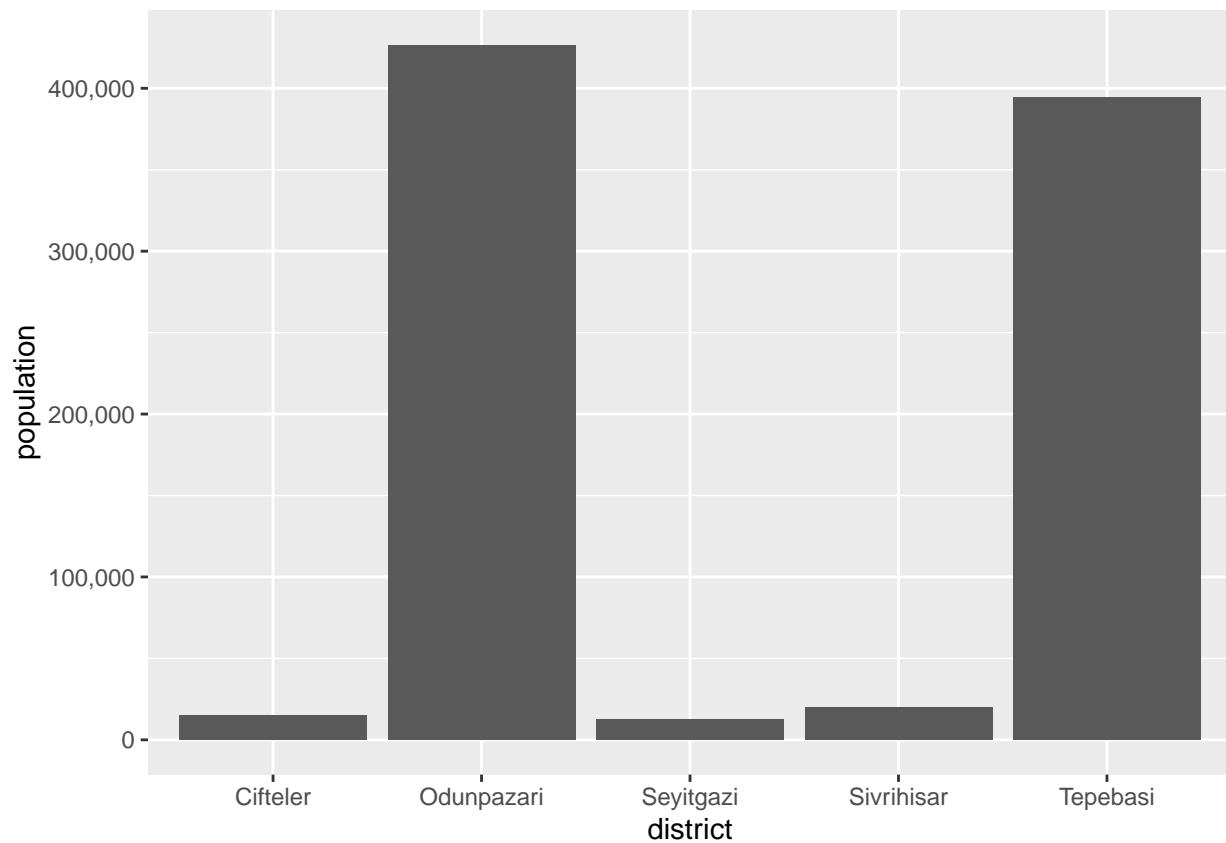
The dataset `eskisehir` contains the total population for the top-5 crowded districts of Eskisehir in 2024.

```
eskisehir <- data.frame(
  district = c("Odunpazari", "Tepebasi", "Sivrihisar", "Cifteler", "Seyitgazi"),
  population = c(426581, 394734, 20258, 14814, 12878))
```

## Drawing a barplot

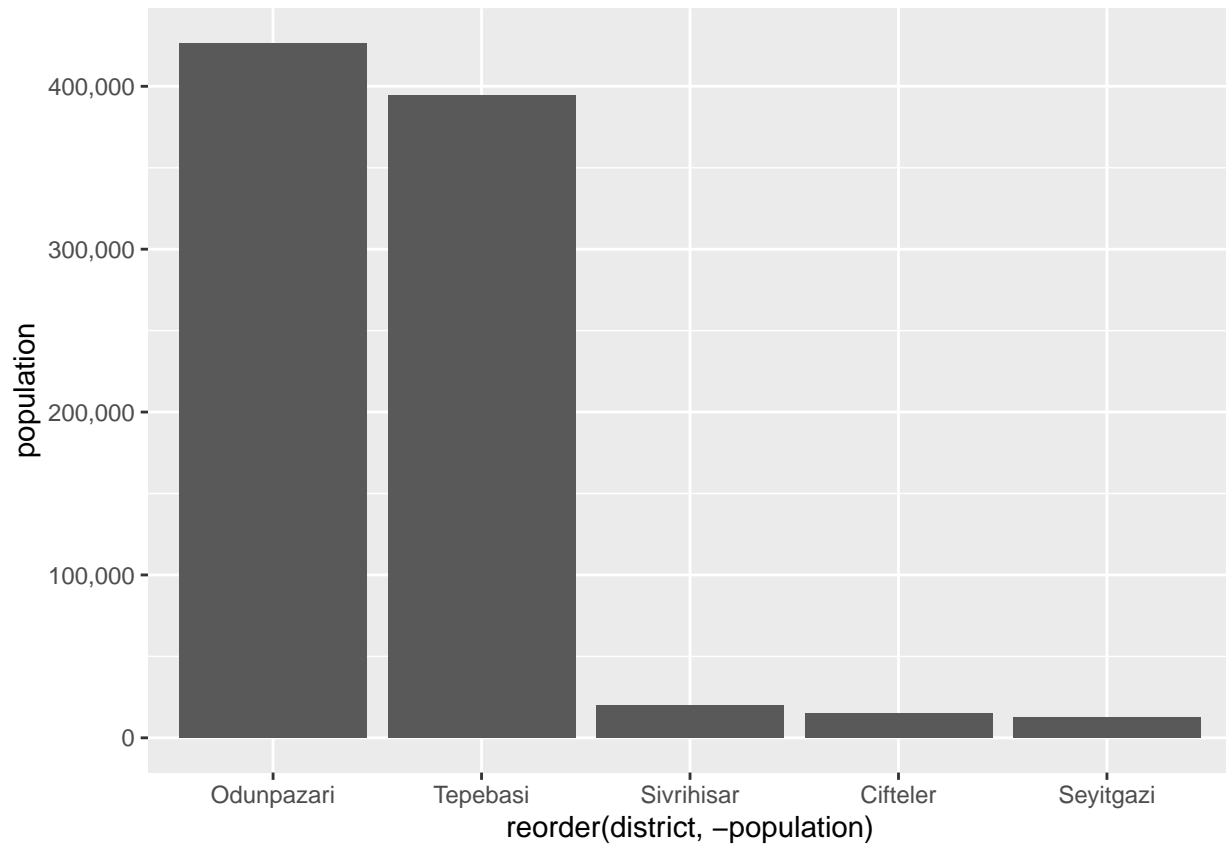
1. Please draw a boxplot to visualize the population of districts (20 pts).

```
ggplot(eskisehir, aes(x=district, y=population)) +
  geom_bar(stat="identity") +
  scale_y_continuous(labels = scales::comma)
```



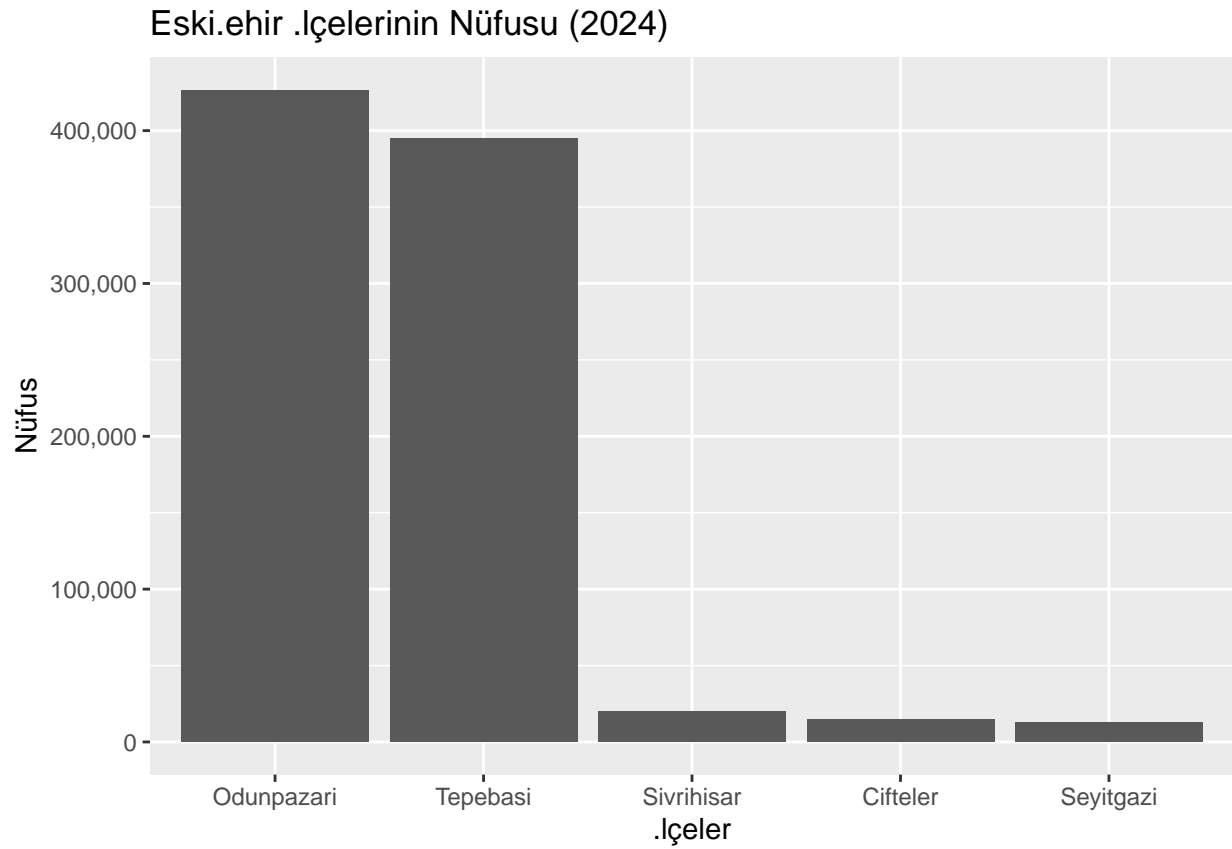
2. Please solve the problems in the plot to make it better (20 pts).

```
ggplot(eskisehir, aes(x = reorder(district, -population), y = population)) +
  geom_bar(stat = "identity") +
  scale_y_continuous(labels = scales::comma)
```



3. Then configure the plot to present it in a better way (40 pts). You can use the tricks that you learned in the lecture.

```
ggplot(eskisehir, aes(x = reorder(district, -population), y = population)) +  
  geom_bar(stat = "identity") +  
  scale_y_continuous(labels = comma) +  
  labs(  
    title = "Eskişehir İlçelerinin Nüfusu (2024)",  
    x = "İlçeler",  
    y = "Nüfus"  
  )
```



4. Interpret the plot (20 pts). It must be about the information of the district populations not the technical part of the plot. Odunpazarı has the most people. Tepebasi is the second. Çifteler, Seyitgazi, and Sivrihisar have fewer people and are similar. This shows that most people live in the center of Eskişehir.