

Assignment 1

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2025-10-06

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

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

library(ggplot2)
```

Dataset

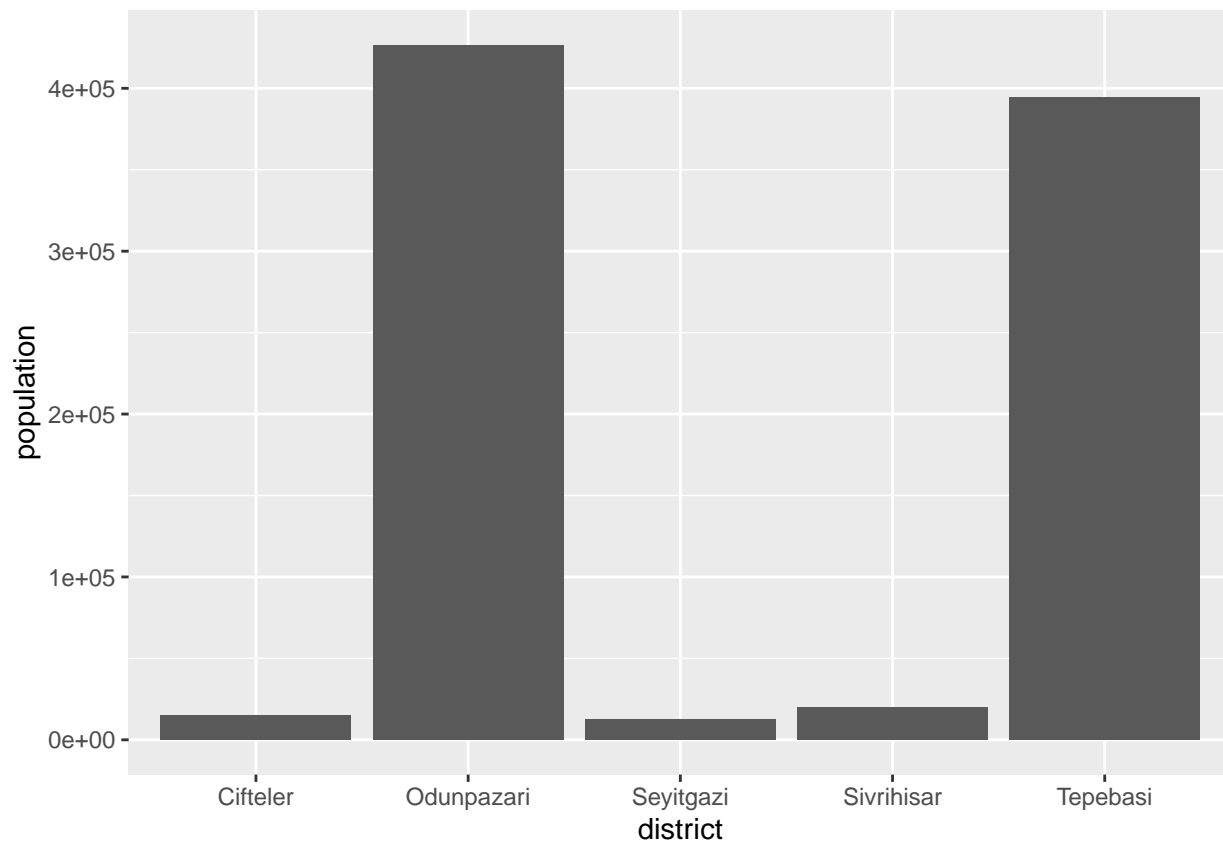
The dataset `eskisehir` contains the total population for the top-5 crowded districts of Eskisehir in 2024.

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

Drawing a barplot

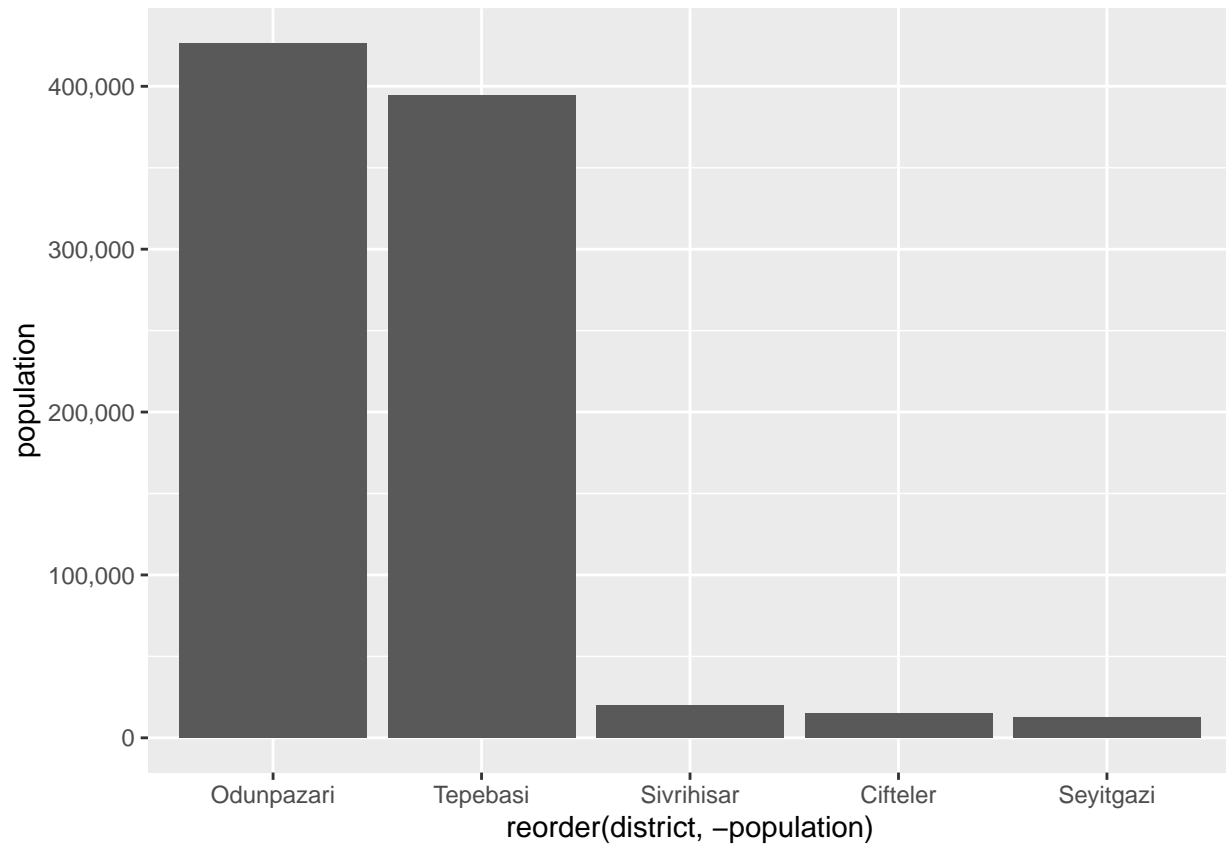
1. Please draw a barplot to visualize the population of districts (20 pts).

```
ggplot(eskisehir, aes(x= district, y=population)) +
  geom_bar(stat="identity")
```



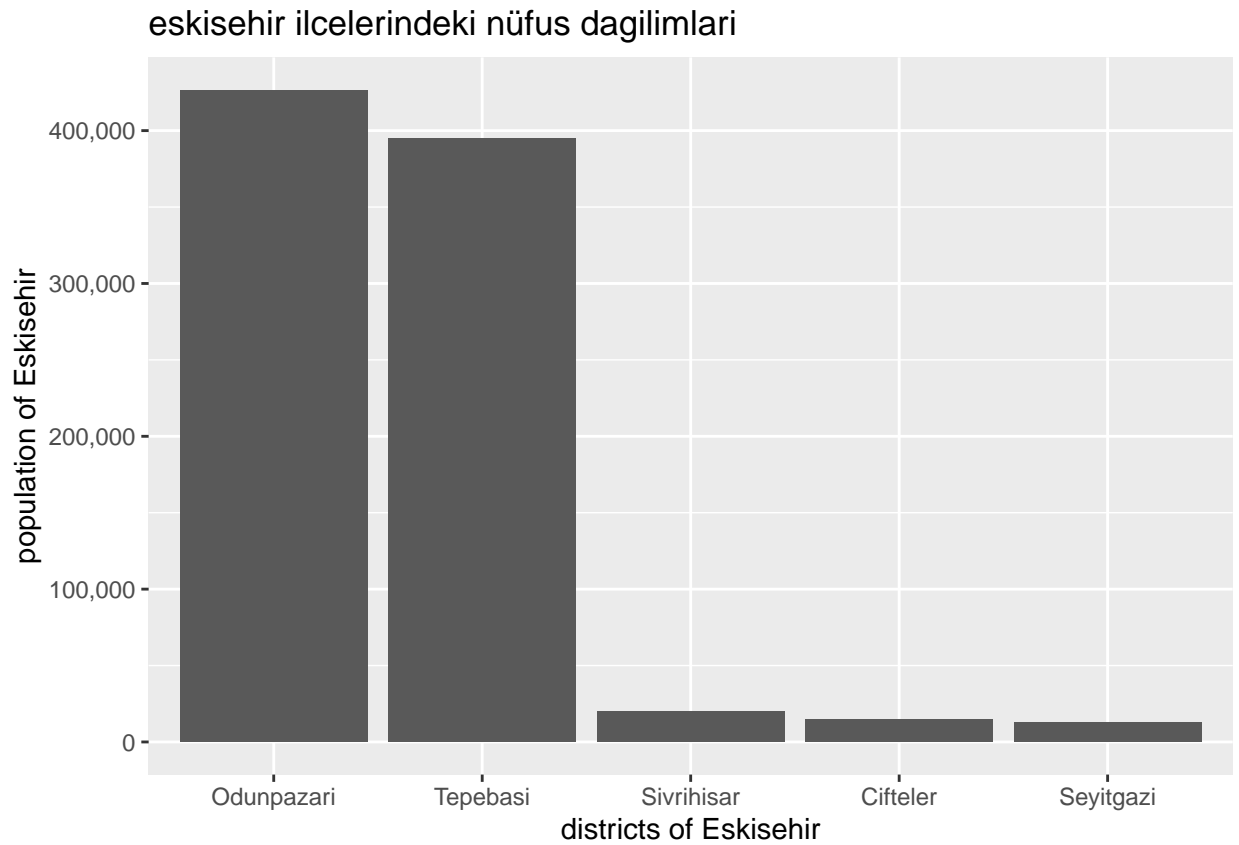
2. Please solve the problems in the plot to make it better (20 pts).

```
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 = scales::comma) +
  labs(x      = "districts of Eskisehir",
       y      = "population of Eskisehir",
       title  = "eskisehir ilcelerindeki nüfus dagilimleri")
```



4. Interpret the plot (20 pts). It must be about the information of the district populations not the technical part of the plot. The population density is higher in the districts of Odunpazari and Tepebasi, while there is a significant decrease in the other districts ...