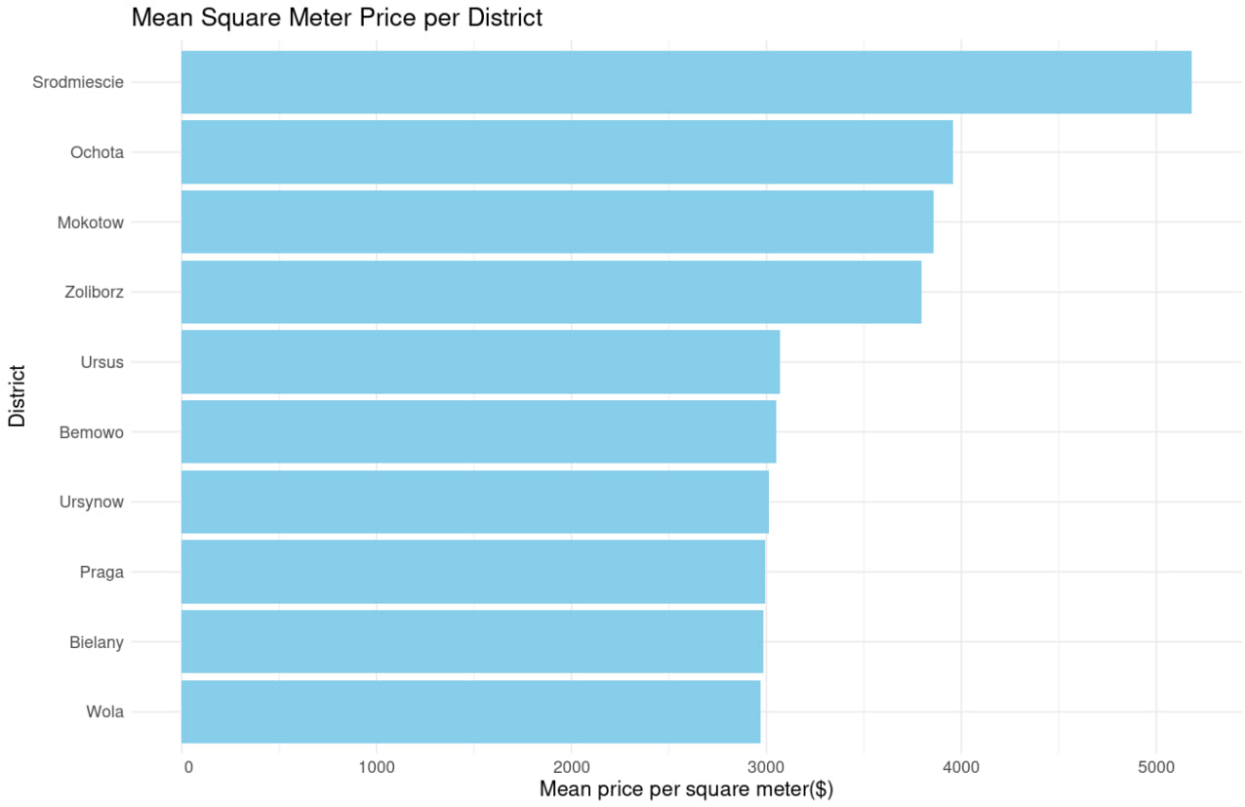
Case 1) Using the apartments dataset in the DALEX package, perform visualizations that can answer the questions below:

Visualize and interpret the average square meter (m2.price) prices of houses by districts. (10 + 10 points)

Investigate and visualize how the average square meter (m2.price) prices of houses vary according to the number of rooms (no.rooms) in the house by districts, and provide your interpretation. (15 + 15 points)



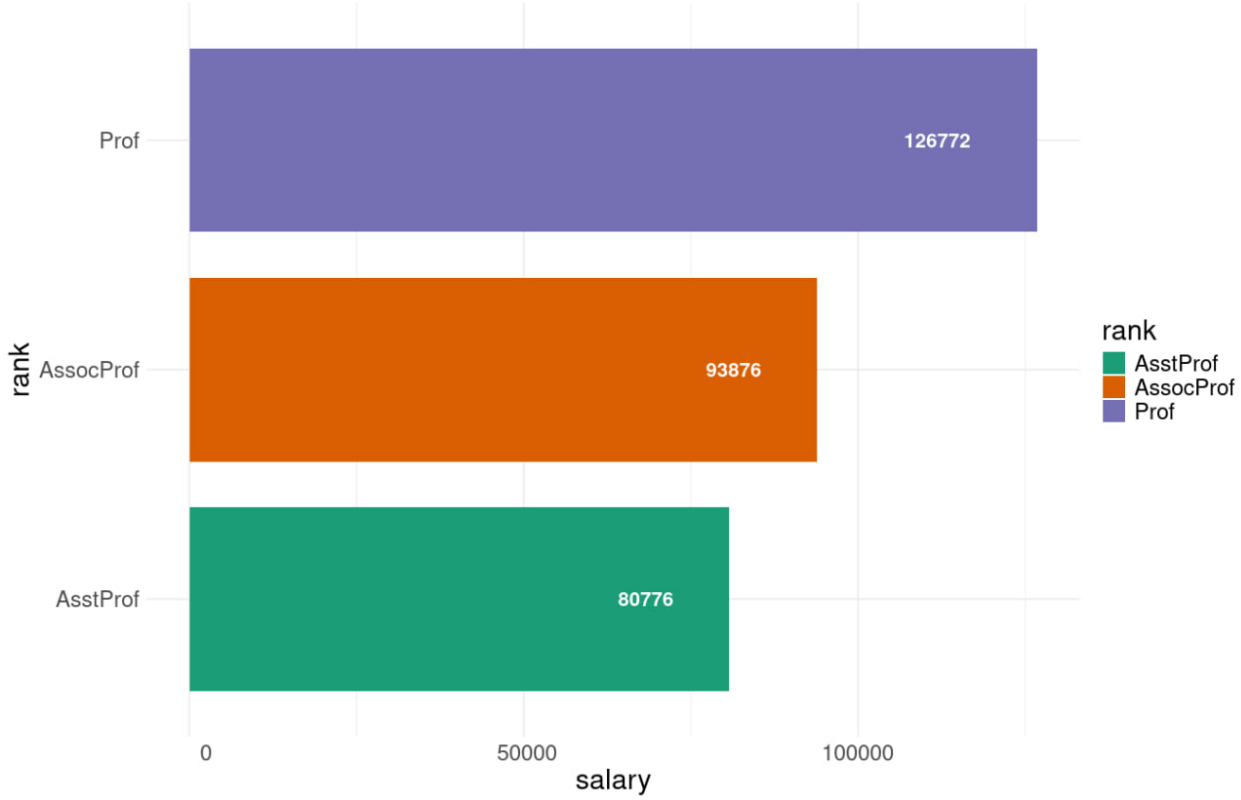
Interpretation:

Srodmiescie district has the biggest average price more than 5000$ per square meter. A district called Wola has the lowest average price. The first 6 cheapest districts have have mostly the same price for square meter around 3000.

Case 2) Using the Salaries dataset in the carData package, perform visualizations that can answer the questions below:

Visualize and interpret the average salary according to academic rank (rank). (10 + 10 points)

Investigate and visualize how the average salary varies by academic rank (rank) according to gender (sex), and provide your interpretation. (15 + 15 points)



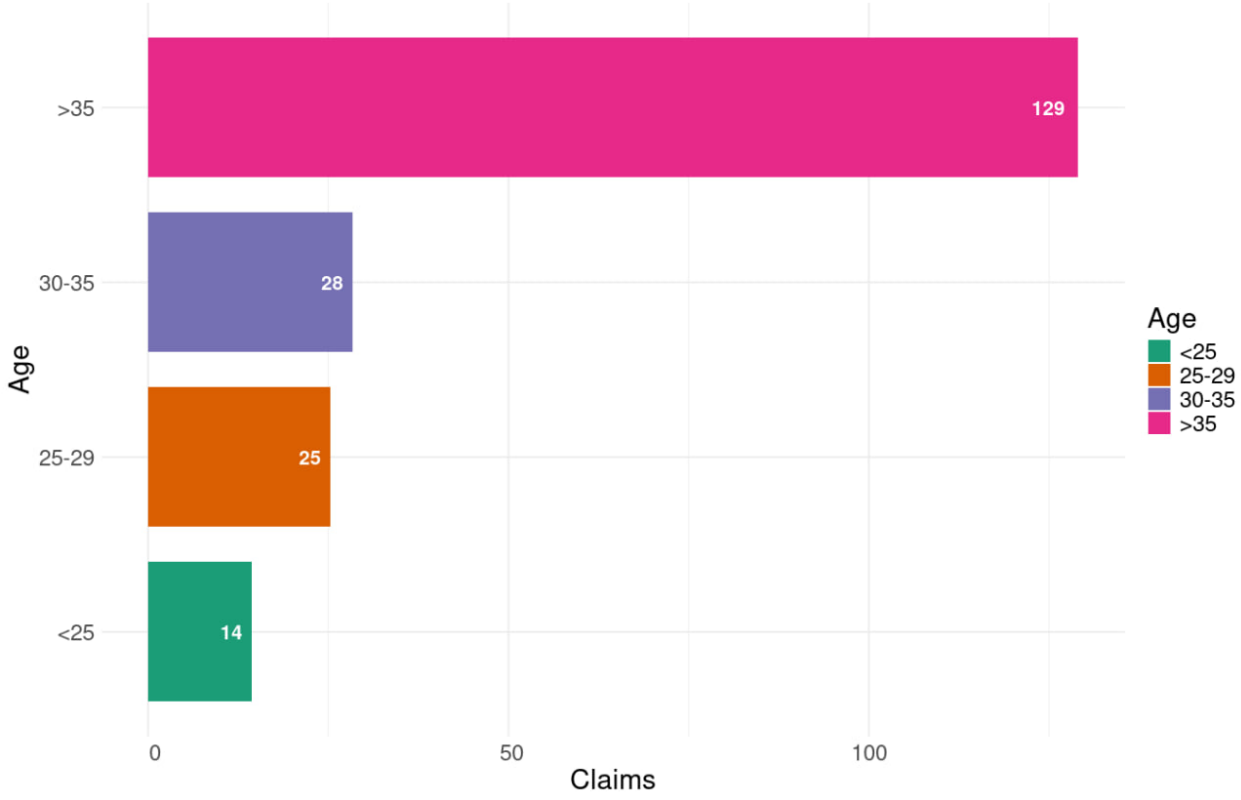
Interpretation:

The biggest average salary is attained by Prof and it is about 126772$. Workers from AsstProf rank get the lowest average salary which is about 80776$.

Case 3) Using the Insurance dataset in the MASS package, perform visualizations that can answer the questions below:

Visualize and interpret the average number of policies (Claims) according to age (Age). (10 + 10 points)

Investigate and visualize how the average number of policies (Claims) varies by age (Age) according to the vehicle engine size (Group), and provide your interpretation. (15 + 15 points)



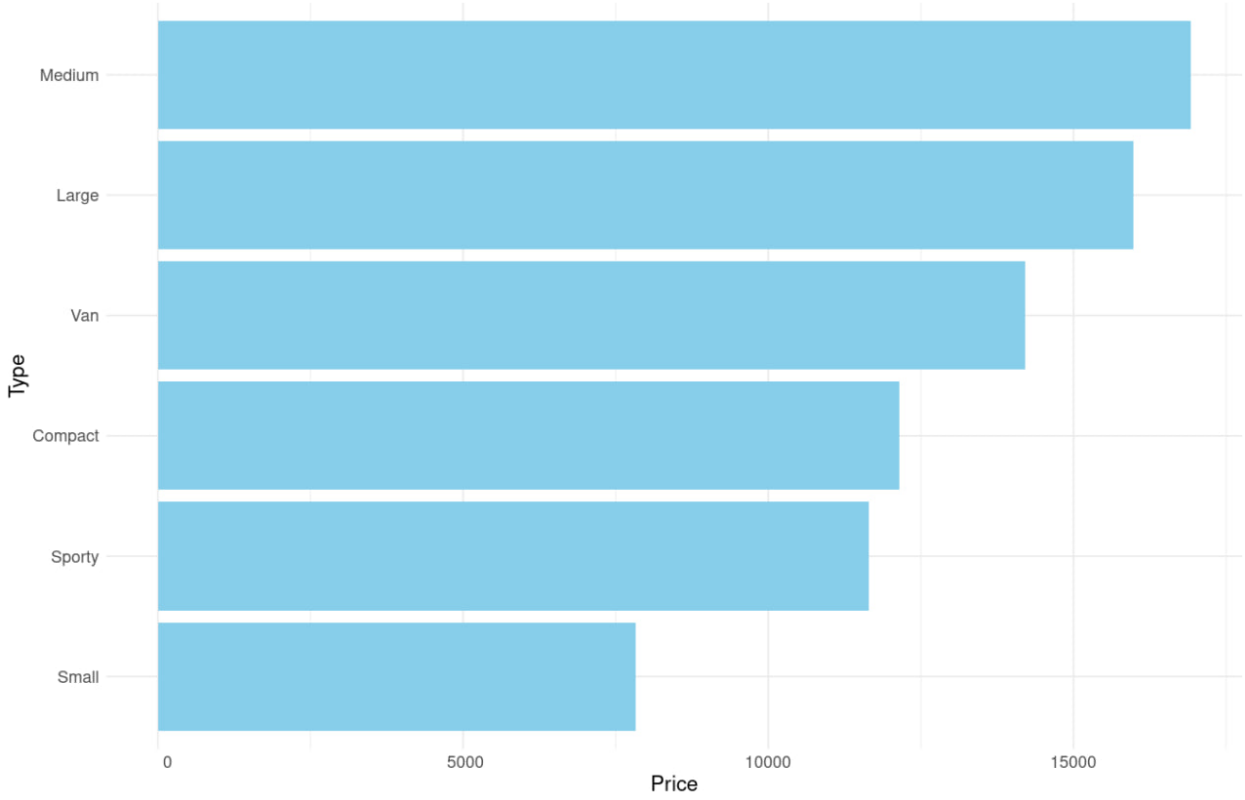
Interpretation:

Clients who are 35 years old or older receive the biggest amount of policies on average which is about 129. Clients who are under 25 get the smallest average amount which is around 14.

Case 4) Using the cu.summary dataset in the rpart package, perform visualizations that can answer the questions below:

Visualize and interpret the average vehicle price (Price) by vehicle type (Type). (10 + 10 points)

Investigate and visualize how the average vehicle price (Price) varies by vehicle type (Type) according to reliability (Reliability), and provide your interpretation. (15 + 15 points)



Interpretation:

The medium sized vehicles are sold for the biggest average price while small vehicles are sold for the lowest price among the other types.