Programming questions

- **Feature frequency**
  - Implement a function that receives a vector of 1s and 0s and returns the number of 1s.

- **MOV data set**
  - Run this script
  - Work with movies data frame. For each genre-related feature compute its feature frequency. Plot all the feature frequency values.
Programming questions

• **USA**rests data set
  • d <- USArrests
  • Print a vector of the state names from the highest Assault rate to the lowest Assault rate.
  • Produce a scatter plot of Rape and Murder.
  • Compute Pearson correlation coefficient for Murder and Rape, Rape and UrbanPop, Murder and UrbanPop.
  • Run K-Means clustering algorithm for K=3 and experiment with Assault and Rape
  • Run K-Means clustering algorithm for K=3 and experiment with all the four features.
  • Use the Elbow Method to find an optimal value of K

• **Titanic** data set
  • d <-
    read.csv("https://ufal.mff.cuni.cz/~hladka/2021/docs/train.csv")