

A photograph of a ski lift chair carrying four people up a snow-covered mountain. The chair is in the foreground, and several other empty chairs are visible further up the line. The background features a steep, snow-laden mountain slope with scattered evergreen trees. The sky is overcast with grey clouds. The entire image has a dark, semi-transparent overlay to make the white text stand out.

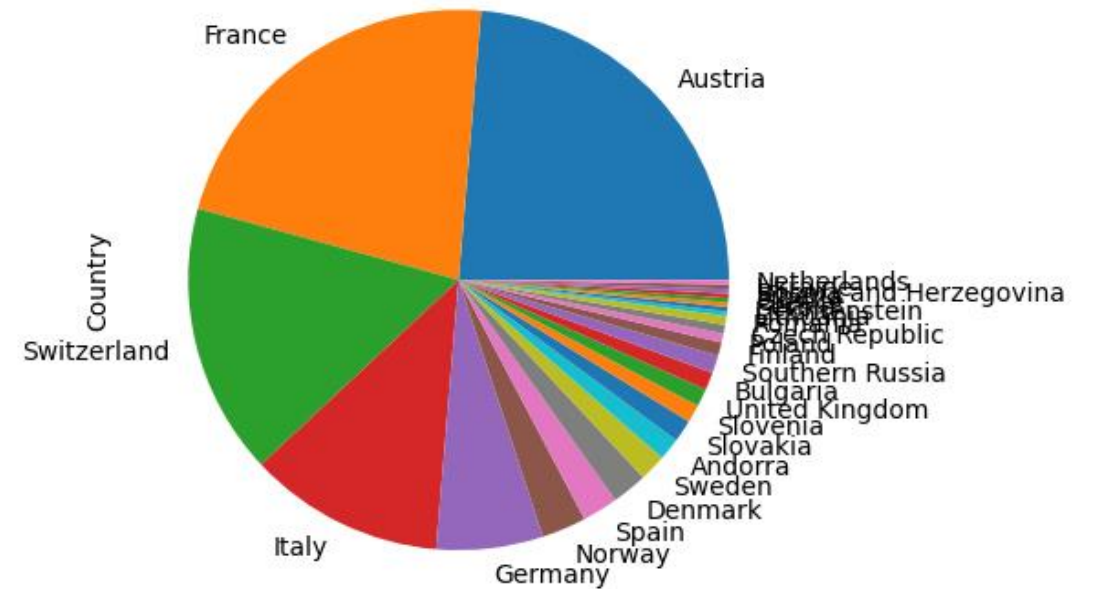
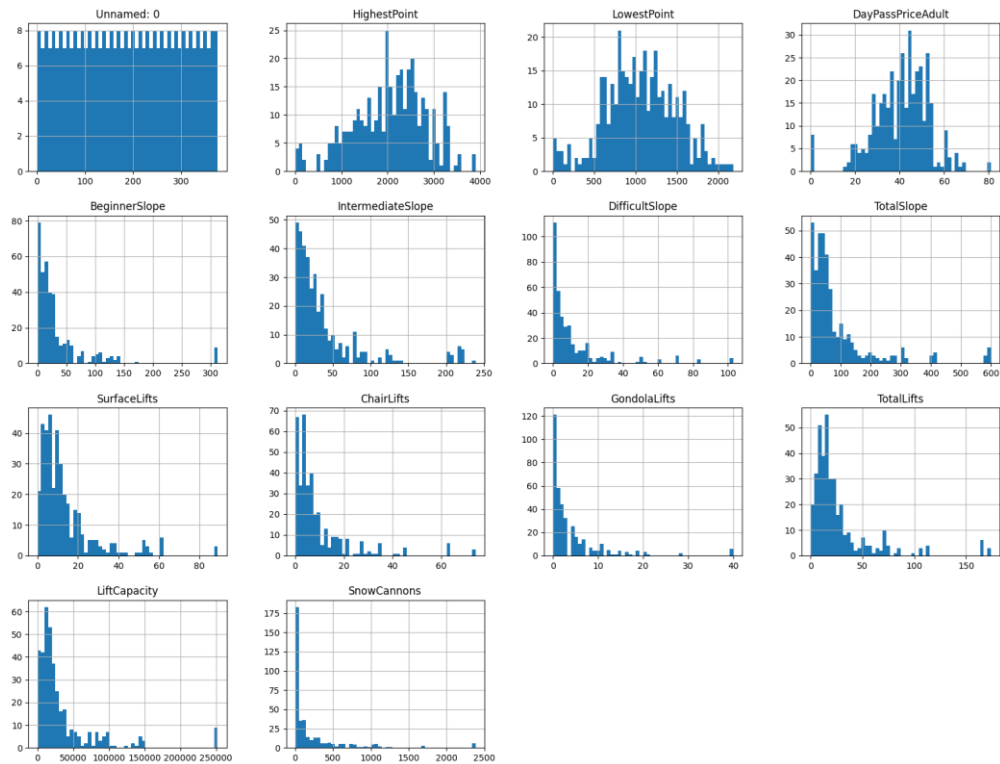
# Learning Portfolio: Predict prices for European skiing resorts using linear regression

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# Task

- Objective: predict prices for adult day passes of skiing resorts in Europe
- Approach:
  1. Descriptive data analysis
  2. Data visualization
  3. Correlation matrix
  4. Split in test and train data
  5. Data preparation and transformation
  6. Build linear model
  7. Evaluate linear model on training data set
  8. Evaluate linear model on testing data set
  9. Compare performance measures (MAE and RMSE)

# Data visualization



# Results

- Linear regression can achieve an remaining mean error of less than 10 euro for a skiing day pass
- Issues:
  - Some countries are problematic because there are only few instances (some only in training data set or only in testing data set)
  - Overfitting seems to be an issue, because performance measures are better when looking at the training data
  - More transformations could be applied still
  - Too small data set