

## Exercises

1. The *AdultUCI* data set of *arules* package contains the questionnaire data of the Adult database formatted as a data.frame. The *Adult* data set contains the data already prepared and coerced to transactions for use with *arules*.
  - (a) Use the *Adult* data set (by calling “*data(Adult)*”) and create a bar plot showing item frequency for the top 12 frequent item sets.
  - (b) Visualize a graph for the predominant 12 rules based on support. Use plot options with `method=“graph”`, `measure=“confidence”`, and `shading=“lift”`. Interpret the figure: which ones are the most frequent items?
  - (c) Calculate the crosstable and report what is the joint probability that someone is *age=Middle-aged* (i.e., put this value as denominator) and also happens to be *workclass=Private*?