1. What is design in software development?

Design in software development refers to the step in which you lay out the architectural decisions necessary to complete the process adequately. This step considers the requirements laid out for the project and then the team attempts to anticipate the challenges imposed by requirements. This anticipation allows the team to make design decisions early and modifications on the fly. The requirements will probably never stay the same throughout the project, but ensuring that the team starts out on the same page while designing is important.

1. List two principles of agile methods and describe them using specific examples that explain the principle’s meaning.

Two principles: Working Software over extensive documentation: . Responding to change over sticking with a plan: .

1. What is “EDA” and why “EDA” is fundamentally a creative process?

EDA stands for Exploratory Data Analysis. The creativity of this process lies in…

1. What is the difference between value and observation?

The difference between value and observation lies in…

1. In what ways can an outlier be helpful?
2. Read about [filter](https://www.rdocumentation.org/packages/dplyr/versions/0.7.8/topics/filter) and provide examples of a multiple criteria and multiple arguments statements using your dataset. *Each student contributes with their example.*

filter(av\_tib, AveragePrice > 1, region == "Albany")

filter(av\_tib, region == "atlanta" | region == "Boise")

1. Create a histogram using your data, and explain your plot. Insert the image in the answer. *Each student contributes with their example.*

Chart

Description automatically generated This histogram depicts how many cases were taken from each year.

1. What is the difference between getwd() and setwd()?
2. What does str() do?
3. Choose one of the following data visualizations projects and perform a what-why-how analysis (at least two charts) using the taxonomy presented by Munzner. *Each student contributes with their example.*