

[Course](#) > [Final Exam and Survey](#) > [Final Challenge](#) > Data Exploration

Data Exploration

Challenge 1: Data Exploration

To complete this challenge:

1. Download the Adventure Works data files - see previous unit.
2. Clean the data by replacing any missing values and removing duplicate rows. In this dataset, each customer is identified by a unique customer ID. The most recent version of a duplicated record should be retained.
3. Explore the data by calculating summary and descriptive statistics for the features in the dataset, calculating correlations between features, and creating data visualizations to determine apparent relationships in the data.
4. Based on your analysis of the customer data **after** removing all duplicate customer records, answer the questions below.

Enter the following summary statistics you calculated for the **AveMonthSpend** column.

Question 1

1.0/1.0 point (graded)

Minimum AveMonthSpend



22

Submit

You have used 2 of 2 attempts

Question 2

1.0/1.0 point (graded)

Maximum AveMonthSpend



176

Submit

You have used 2 of 2 attempts

Question 3

1.0/1.0 point (graded)

Mean AveMonthSpend



72.3978

Submit

You have used 2 of 2 attempts

Question 4

1.0/1.0 point (graded)

Median AveMonthSpend



68

Submit

You have used 2 of 2 attempts

Question 5

1.0/1.0 point (graded)

Standard Deviation AveMonthSpend

27.2728



27.2728

Submit

You have used 2 of 2 attempts

Question 6

1.0/1.0 point (graded)

The distribution of the values in the BikeBuyer column indicates:

☒ Fewer customers have bought bikes than have not bought bikes.



☐ More customers have bought bikes than have not bought bikes.

☐ The same number of customers have bought bikes as have not bought bikes.

Submit

You have used 2 of 2 attempts

Question 7

1.0/1.0 point (graded)

Select the correct order (from lowest to highest) that ranks the median YearlyIncome by Occupation:

☐ Clerical, Manual, Skilled Manual, Professional, Management

☐ Manual, Skilled Manual, Clerical, Management, Professional

☒ Manual, Clerical, Skilled Manual, Professional, Management



☐ Manual, Clerical, Skilled Manual, Management, Professional

Submit

You have used 2 of 2 attempts

Question 8

1.0/1.0 point (graded)

Based on their age at the time when the data was collected (1st January 1998), which group of customers accounts for the highest AveMonthSpend values?

☐ Females under 25 years of age.

☐ Males under 25 years of age.

☐ Females aged between 25 and 45.

☒ Males aged between 25 and 45.



☐ Females over 55 years of age.

☐ Males over 55 years of age.

Submit

You have used 2 of 2 attempts

Question 9

1.0/1.0 point (graded)

Which of the following statements about AveMonthSpend are true?

- ☒ Married customers have a higher median AveMonthSpend than single customers.
- ☐ Customers with no car have a higher median AveMonthSpend than customers with three or more cars.
- ☒ Male customers have a higher median AveMonthSpend than female customers.
- ☐ Female customers have a wider range of AveMonthSpend values than male customers.
- ☒ Customers with no children at home have a lower median AveMonthSpend values than customers with one or more children at home.



Submit

You have used 2 of 2 attempts

Question 10

1/1 point (graded)

Which of the following statements about BikeBuyer are true?

- ☒ The median YearlyIncome is higher for customers who bought a bike than for customers who didn't.
- ☐ The median number of cars owned by customers who bought a bike is lower than for customers who didn't.
- ☐ The most common occupation type for customers who bought a bike is skilled manual.
- ☒ Male customers are more likely to buy bikes than female customers.
- ☐ A married customer is more likely to buy a bike.



Submit

You have used 2 of 2 attempts

✓ Correct (1/1 point)