Homework-1:

Part 3:

Results Interpretation:

Q1: AIT-580 Section (Q1.002, Q1.004)

Survey Question: "AIT-580 Section? 002, 004"

Insight: A slight majority (55.6%) of the respondents are from Section 002, with the remaining 44.4% from Section 004. This nearly equal distribution suggests a balanced participation from both sections.

Q2: Gender (Q2.Male, Q2.Female, Q2.NonBinary, Q2.PreferNotToAnswer)

Survey Question: "Gender? Male, Female, NonBinary, Prefer not to answer"

Insight: Half of the respondents identify as male (50%), followed by females (44.4%), with a very small percentage identifying as non-binary or preferring not to disclose. This indicates a predominantly binary gender representation.

Q3: Age (Q3.Age)

Survey Question: "Age (years)"

Insight: The mean age of 81.67 and a maximum of 1993 suggest errors in the age data, possibly from incorrect data entry. Excluding outliers, ages cluster around the early to mid-20s, reflecting the typical age range of graduate students.

Q4: Height (Q4.Height)

Survey Question: "Height (Inches)"

Insight: Heights vary significantly, with 70 inches being the most common. This data reflects a broad distribution of heights, possibly indicating a diverse group of participants.

Q5: Country of Citizenship (Q5.CountryOfCitizenship)

Survey Question: "Country of Citizenship"

Insight: Most respondents are from the United States (28%), with others from 14 different countries, highlighting the international diversity of the cohort.

Q6: Undergraduate Degree (Q6.UndergradDegree)

Survey Question: "Undergraduate Degree"

Insight: There is a wide variety of undergraduate degrees, with Economics being the most frequent (11%). This suggests that students from diverse academic backgrounds are pursuing data analytics.

Q7: Expected Graduation Date (Q7.ExpectedGraduation)

Survey Question: "Expected Graduation date from Mason MS program?"

Insight: Graduation dates are varied, with "12/31/2021" being the most frequent response, reflecting the different timelines students are on to complete their studies.

Q8: Type of Laptop Used (Q8.MicrosoftWindows, Q8.AppleMacBook, Q8.Other)

Survey Question: "Type of Laptop Used? Microsoft/Windows, Apple/MacBook, Other"

Insight: A majority use Microsoft Windows (64%), followed by Apple MacBooks (33%). This indicates a preference for mainstream operating systems among students, with a small fraction using alternatives.

Q9: Employment Status (Q9.YesFullTime, Q9.WorkingButNotFullTime, Q9.NotWorking)

Survey Question: "Are you employed full-time while attending Mason? Yes, Full Time; Working, but not Full Time; Not Working"

Insight: About 31% of students work full-time, 14% work part-time, and nearly half (47%) are not working. This suggests a significant portion of students are fully dedicating their time to studies.

Q10: Python Skill Level (Q10.Little/None to Q10.FluentExpert)

Survey Question: "What is your approximate current level of programming skill in Python?"

Insight: Most respondents are average users (42%), with few identifying as fluent experts. This suggests a moderate level of comfort with Python, but also room for skill improvement.

Q11: R Skill Level (Q11.Little/none to Q11.Fluent/expert)

Survey Question: "What is your approximate current level of programming skill in R?"

Insight: Skills in R are mostly basic or intermediate, with only a few frequent users and very few experts. This shows a similar pattern of moderate familiarity as seen with Python.

Q12: SQL Skill Level (Q12.Little/none to Q12.Fluent/expert)

Survey Question: "What is your approximate current level of programming skill in SQL?"

Insight: SQL skills also skew towards the lower end of proficiency, with no respondents claiming expert status. This highlights a potential area for skill enhancement.

Q13: GitHub Use (Q13.Yes, Q13.No)

Survey Question: "Do you use GitHub for code repository and management?"

Insight: A third of respondents use GitHub, while the majority (67%) do not. This suggests that many students may not be leveraging GitHub for their coding projects or may lack familiarity with version control practices.

Q14: Career in Data Science/Data Analytics (Q14.Yes, Q14.No, Q14.NotSure)¶

Survey Question: "Will you pursue your career in Data Science/Data Analytics field?"

Insight: Nearly half (47%) are inclined towards a career in data science, with a quarter undecided. This reflects strong interest, though some uncertainty remains among participants.