Programming assignment 03

Use black text (if possible) for everything you include in this document. Keep both your answers and the original questions. Save this document in PDF format and submit it on Canvas. Include your last name, the course number and the module number in the name of your file.

Q1. Include a documentation header here.

The first set of questions relates to Disney World. Dr. Gaddis Loves Disney World! So – Inspired by a question in the Field Textbook, this question uses the setting of Disney World to ask about a “medical” topic.

A castle with blue and gold roofs

Description automatically generated

On average, more than 100,000 people visit Disney World per day! Imagine the census of those who must visit one of the infirmaries in the 4 parks! One of the services provided is Free band aids!

The Magic Kingdom released their free band aid numbers for a two-week period in July. The daily numbers are: 2051, 3450, 5340, 4443, 4230, 2211, 4700, 3209, 3211, 3422, 3843, 4010, 3900, and 5122.

Q2. Carefully enter this data into a text file or enter it directly into SPSS or another software program. Show a screen shot with no more than the first five rows of data. You do not need to show a dialog box or program code here.

Q3. Using SPSS or another program, identify the mean, standard deviation, and range. Show the dialog box or the program code here.

Show the output here.

Write one or two sentences that presents these statistics using an academic style (write them as if they were part of the results section of a peer-reviewed article).

Q4. Hand calculate the 95% confidence interval for this set of data. You have the mean and standard deviation values from above to use in this calculation. You do not need to hand calculate these values, just the confidence interval. Show your work here. This can be typed or written on a separate paper with a photo added here.

Q5. What type (nominal, ordinal, interval, ratio) and classification (categorical, discrete, continuous) is the number of Band aids given each day

Diabetes is not nearly as fun as Disney World, but… we have to get biomedical here. Type II Diabetes is the most common form of diabetes, affecting almost 30 million people in the US. An additional 89 million are pre-diabetic. Type II diabetes has multiple causes including a genetic predisposition, carrying extra weight and beta cell malfunction. Risk factors for developing Type II diabetes include high blood pressure, high triglycerides, low HDL and being overweight or having obesity disease to name a few.

The Homework Data Set – Diabetes will be used to complete this series of tasks.

Q6. Run descriptive statistics for Height, Blood Glucose and Systolic Blood Pressure.

Cut and past the dialog box or include the program code here.

Cut and past the relevant output here.

Write a paragraph that presents these statistics using an academic style.

Q7. Draw histograms for all three variables.

Cut and paste the dialog box or include the program code here.

Cut and past the relevant output here.

Write a paragraph describing these histograms (normal, close to normal, positively skewed, negatively skewed) using an academic style.

Q8. Using the mean and the median only, assess the distribution for each variable (normal, positively skewed, negatively skewed). Explain informally how you arrived at this answer using ONLY information from the mean and median.