1. List at least 5 (five) data points that are required for the analysis and detection of a credit card fraud. (3 marks) (Consecutive)

**1.Transaction date 01-07-20 for $157.25 for Car Spares, User: davidg (Missing IP, Unusual Spending Category)**

**2.Transaction date 03-06-20 for $2,009.99 for Electronics, User : johnp (Unusally high consecutive spending)**

**3.Transaction date 03-06-20 for $4,131.00 for Electronics, User : johnp (Unusally high consecutive spending)**

**4.Transaction date 03-06-20 for $3,010.50 for Tools, User : johnp (Unusally high consecutive spending)**

**5.Transaction date 03-07-20 for $4,896.00 for Laptop, User : ellend (Different Ip Address)**

1. Identify 3 (three) errors/issues that could impact the accuracy of your findings, based on a data table provided. (3 marks)
   1. Null Value data points.
   2. No standard date format
   3. Spelling mistake (“kithchen supplies”)
2. Identify 2 (two) anomalies, or unexpected behaviors, that would lead you to believe the transaction may be suspect, based on a data table provided. (2 marks)
   1. For Johnnp, the amount spent on 3 seperate transactions on the same day is significantly higher than his previous transactions. In addition the shipping address and ip address doesn't seem to conform to the trasactions he made previously.
   2. For ellend, transaction made on 02-07-2020 is significantly higher than previous and was purchased from a different ip address and sent to a different P.O. Box. Also to note is the time the transaction was made which is just after midnight which suggest the purchase was made in a different timezone in a different country.
3. Briefly explain your key take-away from the provided data visualization chart. (1 mark)
   1. Based on the graph above, users johnp and ellend transaction history indicates that their spending has increased dramatically in the lastest transactions meanwhile davidg has remained largely the consistent.
4. Identify the type of analysis that you are performing when you are analyzing historical credit card data to understand what a fraudulent transaction looks like. [Hint: The four types of Analytics include: Descriptive, Diagnostic, Predictive, Prescriptive] (1 mark)
   1. This type of analysis should be **descriptive** because we are looking at data that has been generated in the past. In this case, we are looking into 3 users' past credit history in order to determine spending behavior and to notice discrepansy in their spending.