Class Data Exercise

Note : This data is collected from the students who are attending the Hitech Data Science and AI&IOT Class at Nagpur from 18-11-2019 to 20-01-2020.

1. Read dataset class data.
2. It has three columns, height of the students in cm, preference for arrange marriage(yes/no) and preference for treatment at Government Hospital(yes/no).
3. Rename columns all three columns : ht_cm,ar_ma,govt_hos in the sequence.
4. Print number of rows and columns in this dataset.
5. For the column ht_cm print:
   Mean, standard deviation, lowest value, highest value ,Q1,Q2 and Q3.
6. Calculate the 70th and 90th percentile for this data and print the values.
7. Construct a mild and extreme outlier range for height and check if any outlier exist.
8. Draw a box chart to understand the data with labels.
9. Draw a histogram of about 5 interval with height(cm) on horizontal axis and count on vertical axis.
10. Consider this class data as a sample for population of Nagpur , estimate the true mean of the height of population with confidence interval for confidence level 90% and 92%.
11. Consider this data as a sample for survey that what type marriage the youngster prefer now a days. Estimate what is the proportion of population prefer arrange marriages with interval for confidence level of 85% and 90%.
12. Consider this data as a sample for survey that which hospital, government or private the youngster prefer now a days for medical treatment. Estimate what is the proportion of population prefer government hospital with interval for confidence level of 88% and 94%.