

Title: Explanatory Data Analysis

Aim: Working with Pandas library

Working with data visualization

Task: Panda library

Import the data set

Data visualization

Explanatory data analysis

Exercises:

01. Pandas

- a. Import the pandas as pd
- b. Create the series
- c. Find the data type of the series
- d. Print the index of the element
- e. Multiply and add the element in the series
- f. Print the date
- g. Create the data frame
- h. Insert the given data frame and explain the output
- i. Find the datatype of data frame
- j. Find the first few values of the data frame
- k. Find the last records of the data frame
- l. Index values of data frame
- m. Find the column of the data frame
- n. Convert the data frame into numpy array
- o. Find the statistics summary of data frame
- p. Transpose the data frame
- q. Sort the data frame
- r. Retrieve the value from the data frame

02. Import the data set

- a. Filter the first five records of the data set heart.csv
- b. Find the data type of attributes
- c. Find the information of data set
- d. Find the summary statistics of the data set
- e. Retrieve the information cp greater than 2

03. Data visualization

- a. import the bank-data.csv file
- b. Retrieve the first five records in the data set
- c. Plot the data set
- d. Describe the data set
- e. Plot the data set income Vs children

- f. Construct the bar chart for region
- g. Construct the scatter plot for income and children and set the title as income vs children
- h. Construct the histogram for children

04. Explanatory data analysis

- a. Import the libraries numpy, pandas, matplotlib.pyplot, seaborn
- b. Import the data set bank-data.csv as data
- c. Check the data type
- d. Check the data shape
- e. Check the attribute name of the data set
- f. Check the null values
- g. Remove the unwanted attribute
- h. Rename the Attribute name
- i. Construct the plot for pep
- j. Group the data sex and pep according to the count
- k. Construct the graph for pep vs sex
- l. Find the count of the attribute children according to the category
- m. Construct the graph for attribute children according to the category
- n. Construct the chart to illustrate pep, children and sex of the customer based on the count