

- 1.** Write a Pandas program to read a csv file from a specified source and print the first 5 rows.
(Diamonds.csv)
- 2.** Write a Pandas program to read a dataset from diamonds DataFrame and modify the default columns values and print the first 6 rows.
- 3.** Write a Pandas program to select a series from diamonds DataFrame. Print the content of the series.
- 4.** Write a Pandas program to create a new 'Quality -color' Series (use bracket notation to define the Series name) of the diamonds DataFrame.
- 5.** Write a Pandas program to find the number of rows and columns and data type of each column of diamonds Dataframe.
- 6.** Write a Pandas program to summarize only 'object' columns of the diamonds Dataframe.
- 7.** Write a Pandas program to rename two of the columns of the diamonds Dataframe.
- 8.** Write a Pandas program to rename all the columns of the diamonds Dataframe.
- 9.** Write a Pandas program to remove the second column of the diamonds Dataframe.
- 10.** Write a Pandas program to remove multiple columns at once of the diamonds Dataframe.

- 11.** Write a Pandas program to remove multiple rows at once (axis=0 refers to rows) from diamonds dataframe.
- 12.** Write a Pandas program to sort the 'cut' Series in ascending order (returns a Series) of diamonds Dataframe.
- 13.** Write a Pandas program to sort the 'price' Series in descending order (returns a Series) of diamonds Dataframe.
- 14.** Write a Pandas program to sort the entire diamonds DataFrame by the 'carat' Series in ascending and descending order.
- 15.** Write a Pandas program to filter the DataFrame rows to only show carat weight at least 0.3.
- 16.** Write a Pandas program to convert a python list to pandas series.
- 17.** Write a Pandas program to find the details of the diamonds where length>5, width>5 and depth>5.
- 18.** Write a Pandas program to find the diamonds that are either Premium or Ideal.
- 19.** Write a Pandas program to find the diamonds that are with a Fair or Good or Premium.
- 20.** Write a Pandas program to display all column labels of diamonds DataFrame.

- 21.** Write a Pandas program to read only a subset of 3 rows from diamonds DataFrame.
- 22.** Write a Pandas program to iterate through diamonds DataFrame.
- 23.** Write a Pandas program to drop all non-numeric columns from diamonds DataFrame.
- 24.** Write a Pandas program to include only numeric columns in the diamonds DataFrame.
- 25.** Write a Pandas program to pass a list of data types to only describe certain types of diamonds DataFrame.
- 26.** Write a Pandas program to calculate the mean of each numeric column of diamonds DataFrame.
- 27.** Write a Pandas program to calculate the mean of each row of diamonds DataFrame.
- 28.** Write a Pandas program to calculate the mean of price for each cut of diamonds DataFrame.
- 29.** Write a Pandas program to calculate count, minimum, maximum price for each cut of diamonds DataFrame.
- 30.** Write a Pandas program to create a side-by-side bar plot of the diamonds DataFrame.

31. Write a Pandas program to count how many times each value in cut series of diamonds DataFrame occurs.

32. Write a Pandas program to display percentages of each value of cut series occurs in diamonds DataFrame.

33. Write a Pandas program to display the unique values in cut series of diamonds DataFrame.

34. Write a Pandas program to count the number of unique values in cut series of diamonds DataFrame.

35. Write a Pandas program to compute a cross-tabulation of two Series in diamonds DataFrame.

36. Write a Pandas program to calculate various summary statistics of cut series of diamonds DataFrame.

37. Write a Pandas program to create a histogram of the 'carat' Series (distribution of a numerical variable) of diamonds DataFrame.

38. Write a Pandas program to create a bar plot of the 'value_counts' for the 'cut' series of diamonds DataFrame.

39. Write a Pandas program to create a DataFrame of booleans (True if missing, False if not missing) from diamonds DataFrame.

40. Write a Pandas program to count the number of missing values in each Series of diamonds DataFrame.

41. Write a Pandas program to check the number of rows and columns and drop those row if 'any' values are missing in a row of diamonds DataFrame.

42. Write a Pandas program to drop a row if any or all values in a row are missing of diamonds DataFrame on two specific columns.

43. Write a Pandas program to set an existing column as the index of diamonds DataFrame.

44. Write a Pandas program to set an existing column as the index of diamonds DataFrame and restore the index name, and move the index back to a column.

45. Write a Pandas program to access a specified Series index and the Series values of diamonds DataFrame.

46. Write a Pandas program to sort a Series by its values and index of diamonds DataFrame.

47. Write a Pandas program to calculate the multiply of length, width and depth for each cut of diamonds DataFrame.

48. Write a Pandas program to concatenate the diamonds DataFrame with the 'color' Series.

49. Write a Pandas program to read specified rows and all columns of diamonds DataFrame.

50. Write a Pandas program to read rows 0, 5, 7 and all columns of diamonds DataFrame.

- 51.** Write a Pandas program to read rows 2 through 5 and all columns of diamonds DataFrame.
- 52.** Write a Pandas program to read rows 0 through 2 (inclusive), columns 'color' and 'price' of diamonds DataFrame.
- 53.** Write a Pandas program to read rows 0 through 2 (inclusive), columns 'color' through 'price' (inclusive) of diamonds DataFrame.
- 54.** Write a Pandas program to read rows in which the 'cut' is 'Premium', column 'color' of diamonds DataFrame.
- 55.** Write a Pandas program to read rows in positions 0 and 1, columns in positions 0 and 3 of diamonds DataFrame.
- 56.** Write a Pandas program to read rows in positions 0 through 4, columns in positions 1 through 4 of diamonds DataFrame.
- 57.** Write a Pandas program to read rows in positions 0 through 4 (exclusive) and all columns of diamonds DataFrame.
- 58.** Write a Pandas program to read rows 2 through 5 (inclusive), columns in positions 0 through 2 (exclusive) of diamonds DataFrame.
- 59.** Write a Pandas program to print a concise summary of diamonds DataFrame.
- 60.** Write a Pandas program to get the true memory usage by diamonds DataFrame.

61. Write a Pandas program to calculate the memory usage for each Series (in bytes) of diamonds DataFrame.

62. Write a Pandas program to get randomly sample rows from diamonds DataFrame.

63. Write a Pandas program to get sample 75% of the diamonds DataFrame's rows without replacement and store the remaining 25% of the rows in another DataFrame.

64. Write a Pandas program to read the diamonds DataFrame and detect duplicate color.

Note: duplicated () function returns boolean Series denoting duplicate rows, optionally only considering certain columns.

65. Write a Pandas program to count the duplicate rows of diamonds DataFrame.