**EXERCISE (SET 2)**

**DATA ANALYSIS WITH PANDAS**

**SERIES**

1. Write a Pandas program to compare the elements of two Pandas series.

Sample Series [4,65,436,3,9], [7,0,3,897,9]

1. Write a Pandas program to add, subtract, multiply and divide two Pandas series.

Sample Series: [2,4,6,8,14], [1,3,5,7,9]

1. Write a Pandas program to convert a dictionary to a Pandas series.

Sample dictionary: dictionary1 = {‘Josh’: 24, ‘Sam’: 36, ‘Peace’: 19, ‘Charles’: 65, ‘Tom’: 44}

1. Write a Pandas program to convert a given series to an array.

Sample series: [‘Love’, 800, ‘Joy’, 789.9, ‘Peace’, True]

1. Write a Pandas program to display the most frequent value in the given series and replace everything else as ‘Other’ in the series. (Use the ‘HomeTeamGoals’ column in the dataset provided)

**DATAFRAMES**

***(For this section, you will use the ‘AfricaCupOfNations’ dataset provided to you)***

1. Write a Pandas program to read the given csv file.
2. Write a Pandas program to get the first 7 rows of your data frame.
3. Write a Pandas program to select the ‘HomeTeam’, ‘AwayTeam’, ‘HomeTeamGoals’ and ‘AwayTeamGoals’ columns from your data frame.
4. Write a Pandas program to select the rows where Egypt appears.
5. Write a Pandas program to count the number of rows and columns of your data frame.
6. Write a Pandas program to select the rows where the ‘Attendance’ is missing.
7. Write a Pandas program to select the rows where the ‘HomeTeamGoals’ are between 3 and 6 inclusive.
8. Write a Pandas program to change the “AwayTeamGoals” in the 3rd row to 10.
9. Write a Pandas program to sort the DataFrame first by ‘HomeTeam’ in ascending order, then by ‘HomeTeamScores’ in descending order.
10. Write a Pandas program to get list from DataFrame column headers.
11. Write a Pandas program to append a column of your choice to your DataFrame.
12. Write a Pandas program to add 2 rows to your DataFrame.
13. Write a Pandas program to change the country ‘Uganda’ to ‘China’ in the ‘AwayTeam’ column of the DataFrame.
14. Write a Pandas program to reset index in your DataFrame.
15. Write a Pandas program to check whether the ‘Stadium’ column is present in your DataFrame or not.
16. Write a Pandas program to convert the datatype of the ‘AwayTeamGoals’. (int to float)
17. Write a Pandas program to remove the last 10 rows from your DataFrame.
18. Write a Pandas program to iterate over rows in your DataFrame.
19. Write a Pandas program to change the order of your DataFrame columns.
20. Write a Pandas program to delete DataFrame row(s) whose value is 0 in the ‘HomeTeamGoals’ columns.