

1. Write a function which accepts a list/array/series as input and returns the difference between mean and median
2. Write a function (max_var2_corresponding) which accepts a data frame (df) as input along with 2 column names (var1, var2) in the data frame. Calculate the maximum value in var1 column of df. Return the value of var2 corresponding to maximum value of var1

a. Test Case 1:

Create a dataframe score_df using following set of commands

```
math_score_array = np.array([95,67,88,45,84])
eng_score_array = np.array([78,67,45,39,67])
gender_array = np.array(["M","M","F","M","F"])
score_df = pd.DataFrame({
    'Maths':math_score_array,
    'English':eng_score_array,
    'Gender':gender_array})
score_df.index = ["R1001","R1002","R1003","R1004","R1005"]
```

Call the function developed by you with following statements. Expected outcome is provided after #

- max_var2_corresponding(score_df,"Maths","English") #78
- max_var2_corresponding(score_df,"English","Gender") #M

b. Test Case 2:

Create a dataframe emp_details using following set of commands

```
emp_details_dict = {
    'Age': [25,32,28],
    'Income': [1000,1600,1400]
}
emp_details = pd.DataFrame(emp_details_dict)
emp_details.index = ['Ram','Raj','Ravi']
```

Call the function developed by you with following statements. Expected outcome is provided after #

- max_var2_corresponding(emp_details,"Income","Age") #32