SMART BRIDGE AI ML ASSIGNMENT 1 NAME: N ANIRUDDHAN REG: 21BRS1682

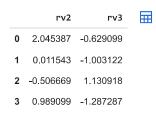
```
Task 1: Create a dataframe df, with numpy values (4 features, 4 values)
import pandas as pd
import numpy as np
data = np.random.randn(4,4)
df = pd.DataFrame(data, columns=['Feature 1', 'Feature 2', 'Feature 3', 'Feature 4'])
print(df)
       Feature 1 Feature 2 Feature 3 Feature 4
       1.600507
                  2.045387 -0.629099
                                        0.255573
                   0.011543 -1.003122
       -0.657032
                                         0.321651
      -0.764738 -0.506669 1.130918
    2
                                         1.881572
       0.643083 0.989099 -1.287287
                                         0.205672
Task 2: Rename the data frame df columns 'Feature 1', Feature 2', Feature 3', Feature 4' to 'rv1', rv2', rv4', rv4'
df = pd.DataFrame(data, columns=['Feature 1', 'Feature 2', 'Feature 3', 'Feature 4'])
df = df.rename(columns={'Feature 1': 'rv1', 'Feature 2': 'rv2', 'Feature 3': 'rv3', 'Feature 4': 'rv4'})
print(df)
                                rv3
            rv1
                      rv2
                                          rv4
    0 1.600507 2.045387 -0.629099 0.255573
    1 -0.657032 0.011543 -1.003122 0.321651
    2 -0.764738 -0.506669 1.130918 1.881572
    3 0.643083 0.989099 -1.287287 0.205672
Task 3: find descriptive statistics of the dataframe
print(df.describe())
print(df.info())
                rv1
                          rv2
                                    rv3
    count 4.000000 4.000000 4.000000 4.000000
    mean 0.205455 0.634840 -0.447148 0.666117
           1.128841 1.126452 1.086023
         -0.764738 -0.506669 -1.287287 0.205672
     25%
          -0.683959 -0.118010 -1.074163 0.243098
     50%
          -0.006975 0.500321 -0.816111 0.288612
         0.882439 1.253171 -0.189095 0.711631
          1.600507 2.045387 1.130918 1.881572
    max
     <class 'pandas.core.frame.DataFrame'>
     RangeIndex: 4 entries, 0 to 3
    Data columns (total 4 columns):
     # Column Non-Null Count Dtype
     0
         rv1
                 4 non-null
                                 float64
                                 float64
     1
         rv2
                 4 non-null
         rv3
                 4 non-null
                                 float64
                 4 non-null
         rv4
                                 float64
    dtypes: float64(4)
    memory usage: 256.0 bytes
Task 4: check for null values in 'df' and find the data type of the columns
```

```
print(df.dtypes)
print(df.isnull())
    rv1
          float64
    rv2
          float64
    rv3
          float64
    rv4
          float64
    dtype: object
               rv2
        rv1
                     rv3
                           rv4
    0 False False False
    1 False False False
```

2 False False False
3 False False False

Task 5: display 'rv2','rv3' columns using iloc and loc methods

df.loc[:,['rv2','rv3']]



df.iloc[:,1:3]



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