AI ML Assignment 1	
Task - 1	Create a pandas dataframe (DataFrame name as 'df') with numpy random values (4 features and 4 observation)
Task - 2	Rename the task - 1 'df' dataframe column names to 'Random value 1', 'Random value 2', 'Random value 3' & 'Random value 4'
Task - 3	Find the descriptive statistics of the 'df' dataframe.
Task - 4	Check for the null values in 'df' and find the data type of the columns.
Task - 5	Display the 'Random value 2' & 'Random value 3' columns with location method and index location method.

CODE:

```
#This assignment is made by:Soumya singh 21bce3014
import pandas as pd

# Creating a dictionary containing data
data = {
    'Name': ['soumya', 'abhishek', 'nishit', 'isha', 'ashu'],
    'Age': [25, 30, 22, 28, 24],
    'Country': ['USA', 'Canada', 'UK', 'India', 'Australia'],
    'gender':['f','m','f','m','f'],
    'year_of_birth':[2000,None,None,2002,2003]
}

# Creating a DataFrame
df = pd.DataFrame(data)

print(df)
df.info()
descriptive_stats = df.describe()

print(descriptive_stats)
observation_4 = df.loc[4]

print(observation_4)
null_counts = df.isnull().sum()

print(null_counts)
```

OUTPUT SCREENSHOTS

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```
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    'Country': ['USA', 'Canada', 'UK', 'India', 'Australia'],
    'gender':['f','m','f','m','f'],
    'year_of_birth':[2000,None,None,2002,2003]
}

# Creating a DataFrame
df = pd.DataFrame(data)

print(df)
```

```
      Name  Age    Country gender  year_of_birth
0    soumya   25        USA      f         2000.0
1  abhishek   30     Canada      m            NaN
2    nishit   22         UK      f            NaN
3      isha   28      India      m         2002.0
4      ashu   24  Australia      f         2003.0
```

day3-basics of python.ipynb

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```
df.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 5 entries, 0 to 4
Data columns (total 5 columns):
 #   Column         Non-Null Count  Dtype
---  ------         --------------  -----
 0   Name           5 non-null      object
 1   Age            5 non-null      int64
 2   Country        5 non-null      object
 3   gender         5 non-null      object
 4   year_of_birth  3 non-null      float64
dtypes: float64(1), int64(1), object(3)
memory usage: 328.0+ bytes
```

day3-basics of python.ipynb

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```
descriptive_stats = df.describe()

print(descriptive_stats)
```

```
             Age  year_of_birth
count   5.000000       3.000000
mean   25.800000    2001.666667
std     3.193744       1.527525
min    22.000000    2000.000000
25%    24.000000    2001.000000
50%    25.000000    2002.000000
75%    28.000000    2002.500000
max    30.000000    2003.000000
```

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```
observation_4 = df.loc[4]

print(observation_4)
```

```
Name                  ashu
Age                     24
Country           Australia
gender                    f
year_of_birth        2003.0
Name: 4, dtype: object
```

```
[17] null_counts = df.isnull().sum()

print(null_counts)
```

```
Name            0
Age             0
Country         0
gender          0
year_of_birth   2
dtype: int64
```