Program1: Covers Data Collection and Data exploration - Covering Pandas Basics and Data Cleaning: Use Pandas library to load, clean, and preprocess data. Read various data formats, handling missing values, and basic data manipulation.

Task1 : Data Collection/Creation Creating a Dataframe

```
import pandas as pd
df = pd.DataFrame(
   {
       "Name": [
           "Braund, Mr. Owen Harris",
           "Allen, Mr. William Henry",
           "Bonnell, Miss. Elizabeth",
       ],
       "Age": [22, 35, 58],
       "Sex": ["male", "male", "female"],
       "height": [90, 56, 120],
   }
)
df
```

	Name	Age	Sex	height
0	Braund, Mr. Owen Harris	22	male	90
1	Allen, Mr. William Henry	35	male	56
2	Bonnell, Miss. Elizabeth	58	female	120

Task 2:Data Collection Extracting only a series in Dataframe. In the exmaple use.extract only "Age" series.

```
df["Name"]
```

```
0     Braund, Mr. Owen Harris
1    Allen, Mr. William Henry
2    Bonnell, Miss. Elizabeth
Name: Name, dtype: object
```

Task3:Data Collection Create a series "Weight"

```
Weight = pd.Series([78, 80, 61,66,78,90], name="vazan")
Weight
print(Weight*2)
```

```
0    156
1    160
2    122
3    132
4    156
5    180
Name: vazan, dtype: int64
```

Task 4: Data exploration in a dataframe Find out the minimum and the maximum of the passenger ages

```
old = df["Age"].max()
young = df["Age"].min()
print(old)
print(young)
```

```
58
22
```

Task 4: Data exploration in a series Find out the minimum and the maximum weights of the passengers

```
lightest = Weight.min()
heaviest = Weight.max()
print(lightest)
print(heaviest)
```

```
61
90
```

Task5 : Data exploration: Get complete statistics of numeric data of the dataframe

```
df.describe()
```

	Age	height
count	3.000000	3.000000
mean	38.333333	88.666667
std	18.230012	32.020827
min	22.000000	56.000000
25%	28.500000	73.000000
50%	35.000000	90.000000
75%	46.500000	105.000000
max	58.000000	120.000000

Conclusion: The program effectively demonstrates basic operations of data handling using Pandas. It covers data creation, extraction, exploration, and manipulation tasks. The provided code snippets are clear and concise, making it easy to understand. It's a good starting point for beginners to get hands-on experience with Pandas for data analysis and manipulation tasks. However, for real-world scenarios, additional tasks such as data visualization, advanced data cleaning techniques, and handling more complex datasets may be necessary.