```python
In [1]:
#import dependencies
import pandas as pd
import numpy as np
```

```python
In [3]:
file = "purchase_data.csv"
purchase_data = pd.read_csv(file)
purchase_data.head()
```

Out[3]:

	Purchase ID	SN	Age	Gender	Item ID	Item Name	Price
0	0	Lisim78	20	Male	108	Extraction, Quickblade Of Trembling Hands	3.53
1	1	Lisovynya38	40	Male	143	Frenzied Scimitar	1.56
2	2	Ithergue48	24	Male	92	Final Critic	4.88
3	3	Chamassasya86	24	Male	100	Blindscythe	3.27
4	4	Iskosia90	23	Male	131	Fury	1.44

```python
In [11]:
#count the total number of players
players_df =purchase_data.groupby("SN")["SN"].nunique()
players_df.count()
```

Out[11]:

576

```python
In [14]:
print("there are 576 total players")
```

there are 576 total players

In [5]:

```python
#Purchasing Analysis
```

In [15]:

```python
# of Unique Items
items_df = purchase_data.groupby("Item Name")["Item Name"].nunique()
items_df.count()
```

Out[15]:

179

In [ ]: