

Heros_of_Pymmoli_report

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1 Heros Of Pymmoli

After a lot of hard work in the data munging mines, you've landed a job as Lead Analyst for an independent gaming company. The assigned task is to analyze the data for their most recent fantasy game Heroes of Pymmoli.

Like many others in its genre, the game is free-to-play, but players are encouraged to purchase optional items that enhance their playing experience. As a first task, the company would like you to generate a report that breaks down the game's purchasing data into meaningful insights.

As the first step, the needed packages are imported. Since data file is json, we need to import json package .

```
In [54]: import pandas as pd
import os
import json
```

```
In [115]: purchase_Data_Reader1=reading_File(os.path.join("raw_data","purchase_data2.json"))
purchase_Data_Reader2=reading_File(os.path.join("raw_data","purchase_data.json"))
purchase_Data_Reader=pd.concat([purchase_Data_Reader1,purchase_Data_Reader2])
purchase_Data_Reader.head()
```

```
Out[115]:
```

	Age	Gender	Item ID	Item Name	Price	SN
0	20	Male	93	Apocalyptic Battlescythe	4.49	Iloni35
1	21	Male	12	Dawne	3.36	Aidaira26
2	17	Male	5	Putrid Fan	2.63	Irim47
3	17	Male	123	Twilight's Carver	2.55	Irith83
4	22	Male	154	Feral Katana	4.11	Philodil43

1.1 Total Players

```
In [117]: total_players=players_count()
total_players
```

```
Out[117]:
```

Total Players
858

1.2 Purchase Analysis Total

```
In [119]: total_analysis_df=total_analysis()
          total_analysis_df
```

```
Out[119]:
```

	No.of Unique Items	Average Price	No.of Purchases	Total Revenue
0	93	27.036882	858	2514.43

```
##
```

1.3 Gender Demographics

```
In [121]: total_Gender=gender_total()
          total_Gender.head()
```

```
Out[121]:
```

	Gender	Percentage Players	Total Count
0	Male	81.24	697
1	Female	17.37	149
2	Other / Non-Disclosed	1.40	12

```
##
```

1.4 Purchasing Analysis (Gender)

```
In [123]: gender_Analyis=gender_Analysis()
          gender_Analyis
```

```
Out[123]:
```

	Gender	Purchase Count	Average Purchase Price \
0	Male	697	2.944448
1	Female	149	2.847584
2	Other / Non-Disclosed	12	3.155000

	Total Purchase Value	Normalized Totals
0	2052.28	2.944448
1	424.29	2.847584
2	37.86	3.155000

1.5 Age Demographics

```
In [126]: age_df=age_group("Age Group")
          age_df=age_df.dropna(how="any")
          age_df
```

```
C:\Users\Aswathy Vineeth\Anaconda3\lib\site-packages\ipykernel_launcher.py:9: RuntimeWarning:
  if __name__ == '__main__':
C:\Users\Aswathy Vineeth\Anaconda3\lib\site-packages\ipykernel_launcher.py:11: RuntimeWarning:
  # This is added back by InteractiveShellApp.init_path()
```

```

Out[126]:   Age Group Range  Purchase Count  Average PRICE  Total Price  \
0          20-25           372          2.923817        1087.66
1          15-19           144          2.894653         416.83
2           <10            37          2.984865         110.44
3          40-44            17          3.275294          55.68
4          25-29           134          2.958507         396.44
5          35-39            48          2.932708         140.77
6          30-34            71          2.973803         211.14
7          10-14            34          2.727941          92.75

      Normalized Total
0          2.923817
1          2.894653
2          2.984865
3          3.275294
4          2.958507
5          2.932708
6          2.973803
7          2.727941

```

1.6 Top Spenders

```

In [128]: new_data=analysis_final(purchase_Data_Reader,"SN","Price")
          new_data

```

```

Out[128]:   SN  Purchase Count  Avg Purchase Price  Total Purchase
0  Undirralla66           5           3.41          17.06
1  Aerithllora36          4           3.78          15.10
2    Saedue76           4           3.39          13.56
3    Sondim43           4           3.26          13.02
4  Mindimnya67           4           3.18          12.74

```

1.7 Popular and Profitable Items

1.7.1 Most Popular Items

```

In [130]: purchase_df=purchase_count()
          # create the df by calling function and sort based on Purchase count
          purchase_df=purchase_df.sort_values("Purchase Count",ascending=False)
          purchase_df.head()

```

```

Out[130]:   Item ID  Purchase Count  Item Name  \
44      84           12      Arcane Gem
104     39           11  Betrayal, Whisper of Grieving Widows
53      31           10      Trickster
14      44            9  Bonecarvin Battle Axe
33     108            9  Extraction, Quickblade Of Trembling Hands

      Price  Total Purchase Value

```

44	4.81	29.34
104	2.35	25.85
53	4.59	23.22
14	4.36	24.04
33	2.26	28.25

1.7.2 Most Profitable Items

```
In [131]: total_purchase=purchase_count()
          # create the df by calling function and sort based on Total Purchase Value
          total_purchase=total_purchase.sort_values("Total Purchase Value",ascending=False)
          total_purchase.head()
```

```
Out[131]:
```

	Item ID	Purchase Count	Item Name	Price \
	102	34	9	Retribution Axe 4.14
	49	107	9	Splitter, Foe Of Subtlety 4.15
	124	115	7	Spectral Diamond Doomblade 4.25
	98	32	6	Orenmir 4.95
	44	84	12	Arcane Gem 4.81

	Total Purchase Value
102	37.26
49	33.03
124	29.75
98	29.70
44	29.34

2 Trend Analysis

- Total players is 858 with 3 type of gender
- There is 93 Unique items and total revenue is \$ 2514
- From Purchase Analysis by Gender, the count of Male Players are very high . But from the average Purchase Price it can be seen that, other players have purchased more than male players
- Age Group 20-25 have made the highest purchases , but average purchase price is highest for 40-44 group
- Undirrala66 is the top spender
- Retribution Axe is the most purchased item and Arcane Gem is the popular item