

Pandas Challenge: Heroes of Pymoli

Purpose:

To analyze the data for the fantasy game Heroes of Pymoli. Generate a report that breaks down the game's purchasing data into meaningful insights.

Data:

Report includes:

- **Player Count:** Total Number of Players
- **Purchasing Analysis (Total):** Number of Unique Items, Average Purchase Price, Total Number of Purchases, Total Revenue
- **Gender Demographics:** Percentage and Count of Male Players, Percentage and Count of Female Players, Percentage and Count of Other / Non-Disclosed
- **Purchasing Analysis (Gender):** Purchase Count, Average Purchase Price, Total Purchase Value, Average Purchase Total per Person by Gender
- **Age Demographics:** The following each broken into bins of 4 years (i.e. <10, 10-14, 15-19, etc.): Purchase Count, Average Purchase Price, Total Purchase Value, Average Purchase Total per Person by Age Group
- **Top Spenders:** Top 5 spenders in the game by total purchase value
- **Most Popular Items:** Top 5 most popular items by purchase count
- **Most Profitable Items:** Top 5 most profitable items by total purchase value

Actionable Insights:

The analysis concludes that females spend \$0.18 more per purchase than males (Figure 1) yet make way less purchases than males playing the game (Figure 2). Therefore, target females due to their higher per purchase spends to increase Total Purchase Value.

	Total Count	Percentage of Players
Male	484	84.03%
Female	81	14.06%
Other / Non-Disclosed	11	1.91%

Figure 1. Purchase Count Male vs. Female vs. Other

	Purchase Count	Average Purchase Price	Total Purchase Value	Average Purchase Total Per Person
Gender				
Female	113	\$3.20	\$361.94	\$4.47
Male	652	\$3.02	\$1,967.64	\$4.07
Other / Non-Disclosed	15	\$3.35	\$50.19	\$4.56

Figure 2. Purchase Count vs. Avg. Purchase Price (Gender)

Target the 35-39 Age Group. This group has the highest Average Purchase Price and highest Average Total per Person yet they make the least number of purchases overall (Figure 3). Increase this group's purchase count to increase overall total Purchase Value.

	Purchase Count	Average Purchase Price	Total Purchase Value	Average Purchase Total per Person
Age Group				
<10	23	\$3.35	\$77.13	\$4.54
10-14	28	\$2.96	\$82.78	\$3.76
15-19	136	\$3.04	\$412.89	\$3.86
20-24	365	\$3.05	\$1,114.06	\$4.32
25-29	101	\$2.90	\$293.00	\$3.81
30-34	73	\$2.93	\$214.00	\$4.12
35-39	41	\$3.60	\$147.67	\$4.76
40+	13	\$2.94	\$38.24	\$3.19

Figure 3. Age Group Purchase Analysis

Increase the item prices (Figure 4) of "Final Critic" and "Oathbreaker, Last Hope of the Breaking Storm. Based on their popularity (Figure 5), making these items more expensive would lead to an expected increase in overall profit.

		Purchase Count	Item Price	Total Purchase Value
Item ID	Item Name			
92	Final Critic	13	\$4.61	\$59.99
178	Oathbreaker, Last Hope of the Breaking Storm	12	\$4.23	\$50.76
82	Nirvana	9	\$4.90	\$44.10
145	Fiery Glass Crusader	9	\$4.58	\$41.22
103	Singed Scalpel	8	\$4.35	\$34.80

Figure 4. Most Profitable Items

		Purchase Count	Item Price	Total Purchase Value
Item ID	Item Name			
92	Final Critic	13	\$4.61	\$59.99
178	Oathbreaker, Last Hope of the Breaking Storm	12	\$4.23	\$50.76
145	Fiery Glass Crusader	9	\$4.58	\$41.22
132	Persuasion	9	\$3.22	\$28.99
108	Extraction, Quickblade Of Trembling Hands	9	\$3.53	\$31.77

Figure 5. Most Popular Items