

## Heroes Of Pymoli Data Analysis

- Of the 1163 active players, the vast majority are male (84%). There also exists, a smaller, but notable proportion of female players (14%).
  - Our peak age demographic falls between 20-24 (44.8%) with secondary groups falling between 15-19 (18.60%) and 25-29 (13.4%).
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### Note

- Instructions have been included for each segment. You do not have to follow them exactly, but they are included to help you think through the steps.

## Player Count

- Display the total number of players

Out[2]:

Total Players	
0	576

## Purchasing Analysis (Total)

- Run basic calculations to obtain number of unique items, average price, etc.
- Create a summary data frame to hold the results
- Optional: give the displayed data cleaner formatting
- Display the summary data frame

Out[3]:

	Number of Unique Items	Average Price	Number of Purchases	Total Revenue
0	183	\$3.05	780	\$2,379.77

## Gender Demographics

- Percentage and Count of Male Players
- Percentage and Count of Female Players
- Percentage and Count of Other / Non-Disclosed

Out[4]:

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

## Purchasing Analysis (Gender)

- Run basic calculations to obtain purchase count, avg. purchase price, avg. purchase total per person etc. by gender
- Create a summary data frame to hold the results
- Optional: give the displayed data cleaner formatting
- Display the summary data frame

Out[5]:

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

## Age Demographics

- Establish bins for ages
- Categorize the existing players using the age bins. Hint: use pd.cut()
- Calculate the numbers and percentages by age group
- Create a summary data frame to hold the results
- Optional: round the percentage column to two decimal points
- Display Age Demographics Table

Out[6]:

	Total Count	Percentage of Players
<b>&lt;10</b>	17	2.95
<b>10-14</b>	22	3.82
<b>15-19</b>	107	18.58
<b>20-24</b>	258	44.79
<b>25-29</b>	77	13.37
<b>30-34</b>	52	9.03
<b>35-39</b>	31	5.38
<b>40+</b>	12	2.08

## Purchasing Analysis (Age)

- Bin the purchase\_data data frame by age
- Run basic calculations to obtain purchase count, avg. purchase price, avg. purchase total per person etc. in the table below
- Create a summary data frame to hold the results
- Optional: give the displayed data cleaner formatting
- Display the summary data frame

Out[7]:

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

## Top Spenders

- Run basic calculations to obtain the results in the table below
- Create a summary data frame to hold the results
- Sort the total purchase value column in descending order
- Optional: give the displayed data cleaner formatting
- Display a preview of the summary data frame

Out[8]:

	Purchase Count	Average Purchase Price	Total Purchase Value
<b>SN</b>			
<b>Lisosia93</b>	5	\$3.79	\$18.96
<b>Idastidru52</b>	4	\$3.86	\$15.45
<b>Chamjask73</b>	3	\$4.61	\$13.83
<b>Iral74</b>	4	\$3.40	\$13.62
<b>Iskadarya95</b>	3	\$4.37	\$13.10

## Most Popular Items

- Retrieve the Item ID, Item Name, and Item Price columns
- Group by Item ID and Item Name. Perform calculations to obtain purchase count, item price, and total purchase value
- Create a summary data frame to hold the results
- Sort the purchase count column in descending order
- Optional: give the displayed data cleaner formatting
- Display a preview of the summary data frame

Out[9]:

		Purchase Count	Item Price	Total Purchase Value
Item ID	Item Name			
178	Oathbreaker, Last Hope of the Breaking Storm	12	\$4.23	\$50.76
145	Fiery Glass Crusader	9	\$4.58	\$41.22
108	Extraction, Quickblade Of Trembling Hands	9	\$3.53	\$31.77
82	Nirvana	9	\$4.90	\$44.10
19	Pursuit, Cudgel of Necromancy	8	\$1.02	\$8.16

## Most Profitable Items

- Sort the above table by total purchase value in descending order
- Optional: give the displayed data cleaner formatting
- Display a preview of the data frame

Out[10]:

		Purchase Count	Item Price	Total Purchase Value
Item ID	Item Name			
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
92	Final Critic	8	\$4.88	\$39.04
103	Singed Scalpel	8	\$4.35	\$34.80