

## Unit 4 | Assignment - Pandas

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### Option 1: Heroes of Pymoli

#### Observations:

#1 – The ratio of game purchased by male players is significantly more as compared to female players being approximately 63% greater. And thus, total purchase value for male players is significantly greater than females. The number of other or non-disclosed wouldn't affect the demographic observation as it is insignificant. Yet, looking at the top spender dataframe, the #2 player is a female for purchase\_data.json. Reference, figure 1 & figure 2.

	Percentage of Players	Total Count
Male	81.15%	633
Female	17.44%	136
Other / Non-Disclosed	1.41%	11

Figure 1

	Purchase counts	Average Purchase Price	Total Purchase Value	Normalized Totals
Gender				
Female	136	\$2.82	\$382.91	\$2.82
Male	633	\$2.95	\$1,867.68	\$2.95
Other / Non-Disclosed	11	\$3.25	\$35.74	\$3.25

Figure 2

#2 – When looked at the age range most of the players are between 15 and 30 years of age, which explains that people tend to play the game more in

	Purchase Count	Average Purchase Price	Total Purchase Value
SN			
Undirrala66	5	\$3.41	\$17.06
Mindimnya67	4	\$3.18	\$12.74
Qarwen67	4	\$2.49	\$9.97
Saedue76	4	\$3.39	\$13.56
Sondastan54	4	\$2.56	\$10.24

Figure 3

	Percentage of Players	Total Count
Age Range		
<10	3.59%	28
10-14	4.49%	35
15-19	17.05%	133
20-24	43.08%	336
25-29	16.03%	125
30-34	8.21%	64
35-39	5.38%	42
>40	2.18%	17

Figure 4

their teenage to late 20s and early 30s. This may be due to the factor of time and lesser responsibilities that affect. Reference figure 3 & figure 4.

#3 – The top 5 items that were the most profitable were also higher in price yet selling more as per purchase counts. Its popularity explains the higher price apparently. Bone crushing silver skewer made to both top 5 popular and profitable games, standing out as a clear winner.

	Item ID	Purchase Count	Item Name	Item Price	Total Purchase Value
0	39	11	Bone Crushing Silver Skewer	\$3.37	\$37.07
1	84	11	Stormbringer, Dark Blade of Ending Misery	\$2.32	\$25.52
2	31	9	Primitive Blade	\$2.46	\$22.14
3	175	9	Final Critic	\$1.36	\$12.24
4	13	9	Stormfury Mace	\$1.27	\$11.43

Figure 5

	Item ID	Purchase Count	Item Name	Item Price	Total Purchase Value
0	39	11	Bone Crushing Silver Skewer	\$3.37	\$37.07
6	65	8	Mercenary Sabre	\$4.57	\$36.56
9	107	8	Expiration, Warscythe Of Lost Worlds	\$4.53	\$36.24
19	172	7	Winterthorn, Defender of Shifting Worlds	\$4.89	\$34.23
15	66	7	Blood-Forged Skeletal Spine	\$4.77	\$33.39

Figure 6

#4 – Game prices starting at anywhere and up to \$5, seems like an affordable range for players. Reference figure 5 & figure 6.