

Assignment 3

Background

The data dive continues!

Now, it's time to take what you've learned about Python Pandas and apply it to new situations.

Heroes of Pymoli

Congratulations! After a lot of hard work in the data munging mines, you've landed a job as Lead Analyst for an independent gaming company. You've been assigned the task of analyzing the data for their most recent fantasy game Heroes of Pymoli.

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.

Your final report should include each of the following:

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)

- The below each broken by gender
 - Purchase Count
 - Average Purchase Price
 - Total Purchase Value
 - Average Purchase Total per Person by Gender

Age Demographics

- The below 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

- Identify the the top 5 spenders in the game by total purchase value, then list (in a table):
 - SN
 - Purchase Count
 - Average Purchase Price
 - Total Purchase Value

Most Popular Items

- Identify the 5 most popular items by purchase count, then list (in a table):
 - Item ID
 - Item Name
 - Purchase Count
 - Item Price
 - Total Purchase Value

Most Profitable Items

- Identify the 5 most profitable items by total purchase value, then list (in a table):
 - Item ID
 - Item Name
 - Purchase Count
 - Item Price
 - Total Purchase Value

As final considerations:

- You must use the Pandas Library and the Jupyter Notebook.
- You must include a written description of three observable trends based on the data.