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 submit a link to your Jupyter Notebook with the viewable Data Frames.

You must include a written description of three observable trends based on the data.

See Example Solution for a reference on expected format.