**Homework #4 – UCB Data Bootcamp**

**Vincent Wong (3/19/18)**

1. **Player Count**

* Total Number of Players = **573**

1. **Purchasing Analysis (Total)**

* 2.1 Number of Unique Items = **179**
* 2.2 Average Purchase Price = **$2.93**
* 2.3 Total Number of Purchases = **780 transactions**
* 2.4 Total Revenue = **$2286.18**

1. **Gender Demographics**

* 3.1 Percentage and Count of Male Players = 465 / 573 = 81.1%
* 3.2 Percentage and Count of Female Players = 100 / 573 = 17.4%
* 3.3 Percentage and Count of Other / Non-Disclosed = 8 / 573 = 1.4%

1. **Purchasing Analysis (Gender)**

* The below each broken by gender by Male, Female, Non-Disclosed

Male First

* + 4.1 Purchase Count = 633
  + 4.2 Average Purchase Price = $2.95
  + 4.3 Total Purchase Value = Mean x Count = 633 x $2.95 = $1,867.35
  + 4.4 Normalized Totals =

Female First

* + 4.1 Purchase Count = 136
  + 4.2 Average Purchase Price = $2.81
  + 4.3 Total Purchase Value = Mean x Count = 136 x $2.81 = $382.16
  + 4.4 Normalized Totals =

Non-Disclosed

* + 4.1 Purchase Count = 11
  + 4.2 Average Purchase Price = $3.24
  + 4.3 Total Purchase Value = Mean x Count = 11 x $3.24 = $35.64
  + 4.4 Normalized Totals =

1. **Age Demographics (Binning)**

* The below each broken into bins of 4 years (i.e. <10, 10-14, 15-19, etc.)
  + 5.1 Purchase Count
  + 5.2 Average Purchase Price
  + 5.3 Total Purchase Value
  + 5.4 Normalized Totals

1. **Top Spenders**

* Identify the the top 5 spenders in the game by total purchase value, then list (in a table):
  + 6.1 SN
  + 6.2 Purchase Count
  + 6.3 Average Purchase Price
  + 6.4 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:

* Your script must work for both data-sets given – **Only 1 dataset given**
* You must use the Pandas Library and the Jupyter Notebook. – **Used Pandas and Juypter notebook**
* You must submit a link to your Jupyter Notebook with the viewable Data Frames.
* You must include an exported markdown version of your Notebook called README.md in your GitHub repository.
* You must include a written description of three observable trends based on the data.