**Conclusion1: Most profitable item and its purchase count.**

Oathbreaker, Last Hope of the Breaking Storm was bought 12 times and that was the most profitable item.

**Check gender and Age - see which gender and age purchase is highest.**

**Conclusion2**: There is only one female over 40 years old who made a purchase.

Age groups 20-24 made the highest number of purchases among all three genders.

Code to produce the data:

### Check how many males fell in which age category.

checkgender=pd.DataFrame(purchase\_data\_original)

Male=checkgender['Gender']== 'Male'

#print(Male)

checkgender\_male=checkgender[Male]

#checkgender\_male.style

agecount\_male= checkgender\_male.groupby('age label')['Gender'].count()

#print(agecount\_male)

#### Check how many females fell in which age category.

checkgender=pd.DataFrame(purchase\_data\_original)

Female=checkgender['Gender']== 'Female'

#print(Male)

checkgender\_female=checkgender[Female]

#checkgender\_female.style

agecount\_female= checkgender\_female.groupby('age label')['Gender'].count()

#print(agecount\_female)

#### Check how many others fell in which age category.

checkgender=pd.DataFrame(purchase\_data\_original)

Other=checkgender['Gender']== "Other / Non-Disclosed"

#print(Male)

checkgender\_Other=checkgender[Other]

#checkgender\_female.style

agecount\_Other= checkgender\_Other.groupby('age label')['Gender'].count()

#print(agecount\_Other)

#type(agecount\_Other)

summaryagegender=pd.merge(agecount\_male,agecount\_female, on = "age label" )

summaryagegender= pd.merge(agecount\_Other,summaryagegender, on = "age label")

summaryagegender=summaryagegender.rename(columns = {'Gender':'others','Gender\_x':'Male', 'Gender\_y':'Female'}, inplace = False)

print(summaryagegender)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | **Others** | **Male** | **Female** |
| **age label** |  |  |  |  |
| <10 |  | 0 | 18 | 5 |
| 10-14' |  | 0 | 25 | 3 |
| 15-19 |  | 4 | 108 | 24 |
| 20-24 |  | 5 | 304 | 56 |
| 25-29 |  | 2 | 85 | 14 |
| 30-34 |  | 0 | 66 | 7 |
| 35-39 |  | 4 | 34 | 3 |
| 40+ |  | 0 | 12 | 1 |

**Conclusion 3: The highest purchase was made by a 25 year old Male.**

Lisosia93- name, 5 - number of purchases and $18.96 - purchase amount