

Problem Statement:

To create customer profiles and analyse differences across AeroFit treadmill products (KP281, KP481, and KP781)

Colab notebook: https://drive.google.com/file/d/1NE_mdGHAAbua4QuqPw0WRyBlcF4v9I-/view?usp=sharing

The given data set has data on individuals who purchased a treadmill from the Aerofit stores during a period of three months.

Products: KP281, KP481, or KP781

Data(sample):

	Product	Age	Gender	Education	MaritalStatus	Usage	Fitness	Income	Miles
0	KP281	18	Male	14	Single	3	4	29562	112
1	KP281	19	Male	15	Single	2	3	31836	75
2	KP281	19	Female	14	Partnered	4	3	30699	66
3	KP281	19	Male	12	Single	3	3	32973	85
4	KP281	20	Male	13	Partnered	4	2	35247	47

Given data has 180 records and 9 attributes.

```
data.info()

<class 'pandas.core.frame.DataFrame'>
RangeIndex: 180 entries, 0 to 179
Data columns (total 9 columns):
 #   Column      Non-Null Count  Dtype  
--- 
 0   Product     180 non-null    object  
 1   Age         180 non-null    int64   
 2   Gender      180 non-null    object  
 3   Education   180 non-null    int64   
 4   MaritalStatus 180 non-null  object  
 5   Usage        180 non-null    int64   
 6   Fitness     180 non-null    int64   
 7   Income       180 non-null    int64   
 8   Miles        180 non-null    int64  
dtypes: int64(6), object(3)
memory usage: 12.8+ KB
```

Characteristics of data:

```
data.describe().T

   count      mean       std      min     25%     50%     75%     max
Age    180.0  28.788889  6.943498  18.0  24.00  26.0  33.00  50.0
Education    180.0  15.572222  1.617055  12.0  14.00  16.0  16.00  21.0
Usage     180.0  3.455556  1.084797   2.0  3.00  3.0  4.00  7.0
Fitness    180.0  3.311111  0.958869   1.0  3.00  3.0  4.00  5.0
Income     180.0  53719.577778 16506.684226 29562.0 44058.75 50596.5 58668.00 104581.0
Miles      180.0  103.194444  51.863605  21.0  66.00  94.0 114.75  360.0
```

```
data.describe(include= "object").T

   count  unique      top freq
Product     180      3  KP281   80
Gender      180      2    Male  104
MaritalStatus 180      2 Partnered 107
```

Number of records available for K281: 80

Number of records available for K481: 60

Number of records available for K781: 40

Probability of user buying K281: 0.444

Probability of user buying K481: 0.333

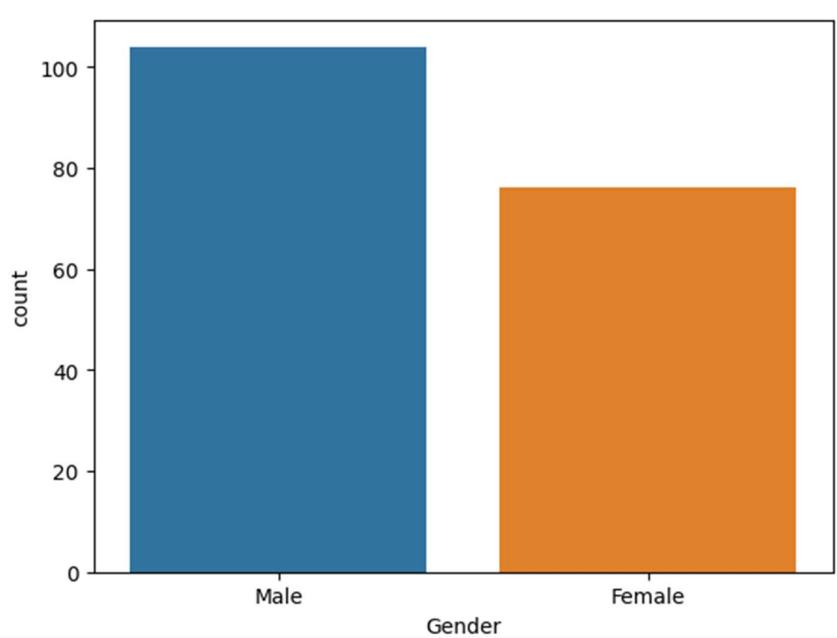
Probability of user buying K781: 0.222

Demographics:

Gender:

```
data["Gender"].value_counts()
```

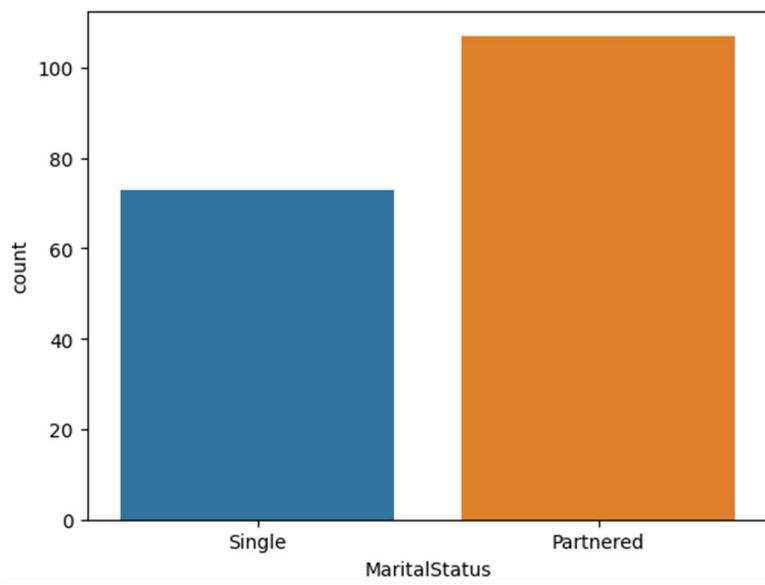
```
Male      104  
Female    76  
Name: Gender, dtype: int64
```



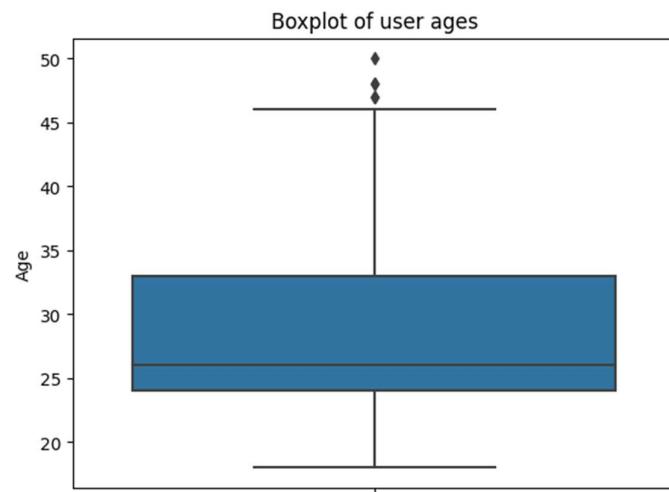
Marital Status:

```
data["MaritalStatus"].value_counts()
```

```
Partnered    107  
Single       73  
Name: MaritalStatus, dtype: int64
```



Outlier Analysis



Median of ages:

KP281 26.0

KP481 26.0

KP781 27.0

Mean of ages:

KP281 28.55

KP481 28.90

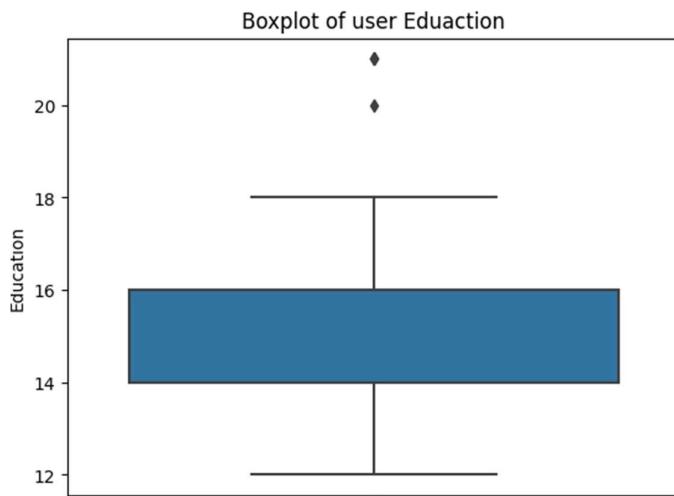
KP781 29.10

Outliers in age: Age>47 approximately.

data[data["Age"]>47]										
	Product	Age	Gender	Education	MaritalStatus	Usage	Fitness	Income	Miles	
79	KP281	50	Female	16	Partnered	3	3	64809	66	
139	KP481	48	Male	16	Partnered	2	3	57987	64	
179	KP781	48	Male	18	Partnered	4	5	95508	180	

These outliers have who have purchased KP281 and KP481 have same fitness levels, same workout intensity(miles), same educational years.

The outlier who purchased KP781 is of fitness level 5 and high usage and intensity.



```
[113] data[data["Education"]>18]
```

	Product	Age	Gender	Education	MaritalStatus	Usage	Fitness	Income	Miles
156	KP781	25	Male	20	Partnered	4	5	74701	170
157	KP781	26	Female	21	Single	4	3	69721	100
161	KP781	27	Male	21	Partnered	4	4	90886	100
175	KP781	40	Male	21	Single	6	5	83416	200

People with 18+ years of education prefer the KP781.

Median of education:

KP281 16.0

KP481 16.0

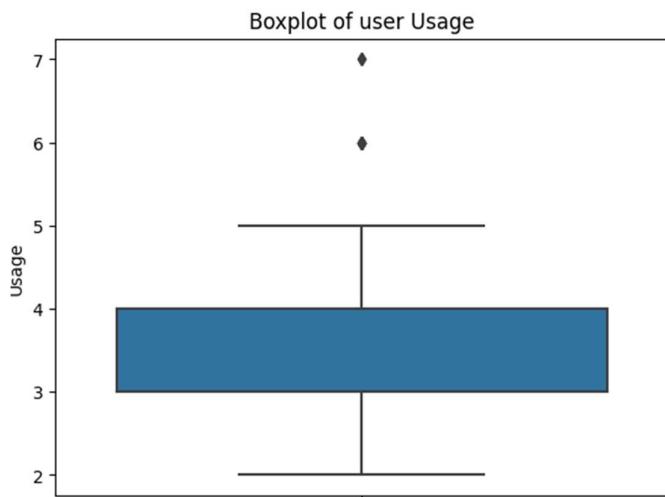
KP781 18.0

Mean of education:

KP281 15.037500

KP481 15.116667

KP781 17.325000



	Product	Age	Gender	Education	MaritalStatus	Usage	Fitness	Income	Miles
154	KP781	25	Male	18	Partnered	6	4	70966	180
155	KP781	25	Male	18	Partnered	6	5	75946	240
162	KP781	28	Female	18	Partnered	6	5	92131	180
163	KP781	28	Male	18	Partnered	7	5	77191	180
164	KP781	28	Male	18	Single	6	5	88396	150
166	KP781	29	Male	14	Partnered	7	5	85906	300
167	KP781	30	Female	16	Partnered	6	5	90886	280
170	KP781	31	Male	16	Partnered	6	5	89641	260
175	KP781	40	Male	21	Single	6	5	83416	200

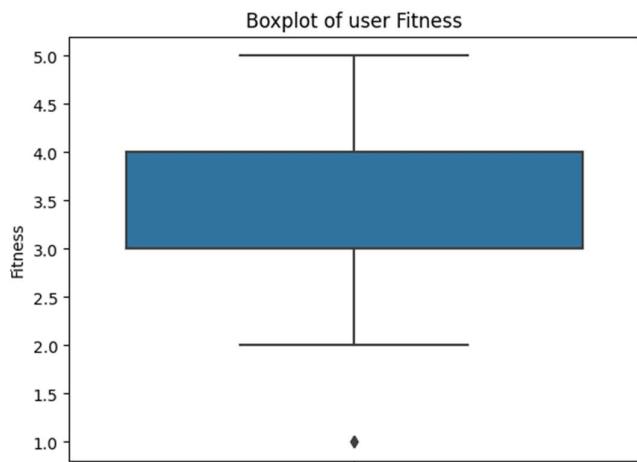
People with usage greater than 5 also prefer KP781 and have mostly fitness level 5 and are mostly married.

```
#median usage group of customer per product type
data.groupby("Product")["Usage"].agg(lambda x: x.median())
```

```
Product
KP281    3.0
KP481    3.0
KP781    5.0
Name: Usage, dtype: float64
```

```
#mean usage group of customer per product type
data.groupby("Product")["Usage"].agg(lambda x: x.mean())
```

```
Product
KP281    3.087500
KP481    3.066667
KP781    4.775000
Name: Usage, dtype: float64
```



```
[115] data[data["Fitness"]<=1.5]
```

	Product	Age	Gender	Education	MaritalStatus	Usage	Fitness	Income	Miles
14	KP281	23	Male	16	Partnered	3	1	38658	47
117	KP481	31	Female	18	Single	2	1	65220	21

People with low levels of fitness prefer KP281 and KP481.

```
#median fitness level group of customer per product type
data.groupby("Product")["Fitness"].agg(lambda x: x.median())
```

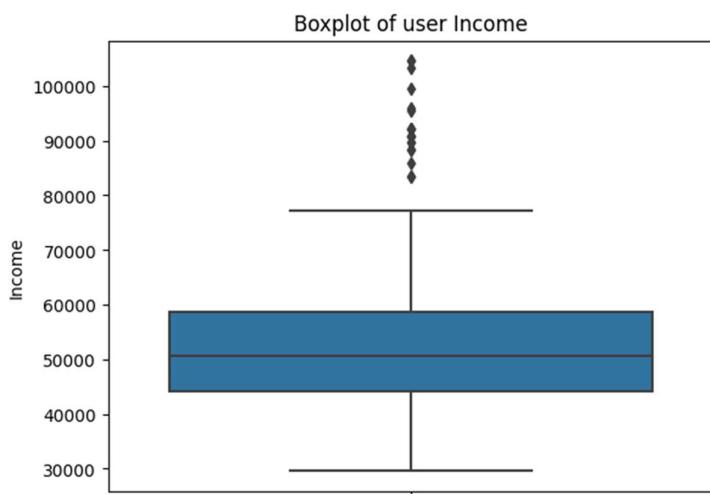
Product
KP281 3.0
KP481 3.0
KP781 5.0

Name: Fitness, dtype: float64

```
#mean fitness level group of customer per product type
data.groupby("Product")["Fitness"].agg(lambda x: x.mean())
```

Product
KP281 2.9625
KP481 2.9000
KP781 4.6250

Name: Fitness, dtype: float64



	Product	Age	Gender	Education	MaritalStatus	Usage	Fitness	Income	Miles
159	KP781	27	Male	16	Partnered	4	5	83416	160
160	KP781	27	Male	18	Single	4	3	88396	100
161	KP781	27	Male	21	Partnered	4	4	90886	100
162	KP781	28	Female	18	Partnered	6	5	92131	180
164	KP781	28	Male	18	Single	6	5	88396	150
166	KP781	29	Male	14	Partnered	7	5	85906	300
167	KP781	30	Female	16	Partnered	6	5	90886	280
168	KP781	30	Male	18	Partnered	5	4	103336	160
169	KP781	30	Male	18	Partnered	5	5	99601	150
170	KP781	31	Male	16	Partnered	6	5	89641	260
171	KP781	33	Female	18	Partnered	4	5	95866	200
172	KP781	34	Male	16	Single	5	5	92131	150
173	KP781	35	Male	16	Partnered	4	5	92131	360
174	KP781	38	Male	18	Partnered	5	5	104581	150
175	KP781	40	Male	21	Single	6	5	83416	200
176	KP781	42	Male	18	Single	5	4	89641	200
177	KP781	45	Male	16	Single	5	5	90886	160
178	KP781	47	Male	18	Partnered	4	5	104581	120
179	KP781	48	Male	18	Partnered	4	5	95508	180

People with high incomes (>80000) prefer KP781.

```
#median income group of customers per product type  
data.groupby("Product")["Income"].agg(lambda x: x.median())
```

Product

KP281 46617.0

KP481 49459.5

KP781 76568.5

Name: Income, dtype: float64

```
#mean income group of customers per product type  
data.groupby("Product")["Income"].agg(lambda x: x.mean())
```

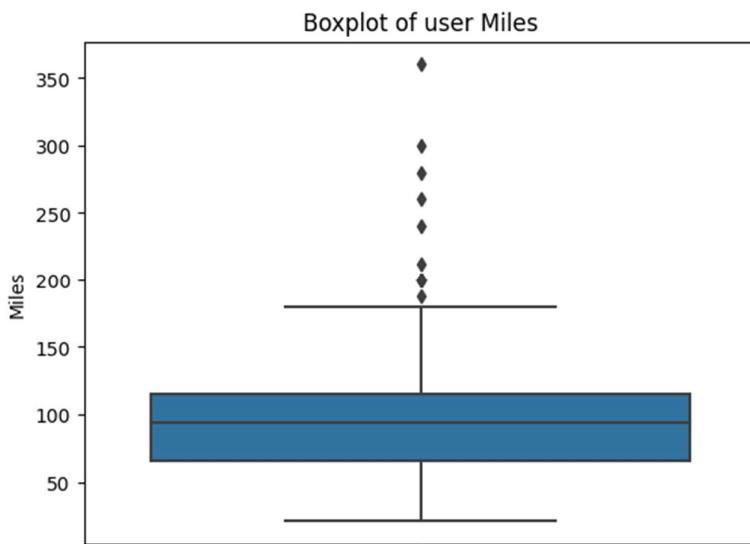
Product

KP281 46418.025

KP481 48973.650

KP781 75441.575

Name: Income, dtype: float64



```
117] data[data["Miles"]>200]
```

	Product	Age	Gender	Education	MaritalStatus	Usage	Fitness	Income	Miles
84	KP481	21	Female	14	Partnered	5	4	34110	212
155	KP781	25	Male	18	Partnered	6	5	75946	240
166	KP781	29	Male	14	Partnered	7	5	85906	300
167	KP781	30	Female	16	Partnered	6	5	90886	280
170	KP781	31	Male	16	Partnered	6	5	89641	260
173	KP781	35	Male	16	Partnered	4	5	92131	360

People who train with intensity also mostly prefer KP781.

```
#median miles per group of customers per product type  
data.groupby("Product")["Miles"].agg(lambda x: x.median())
```

```
Product  
KP281    85.0  
KP481    85.0  
KP781    160.0  
Name: Miles, dtype: float64
```

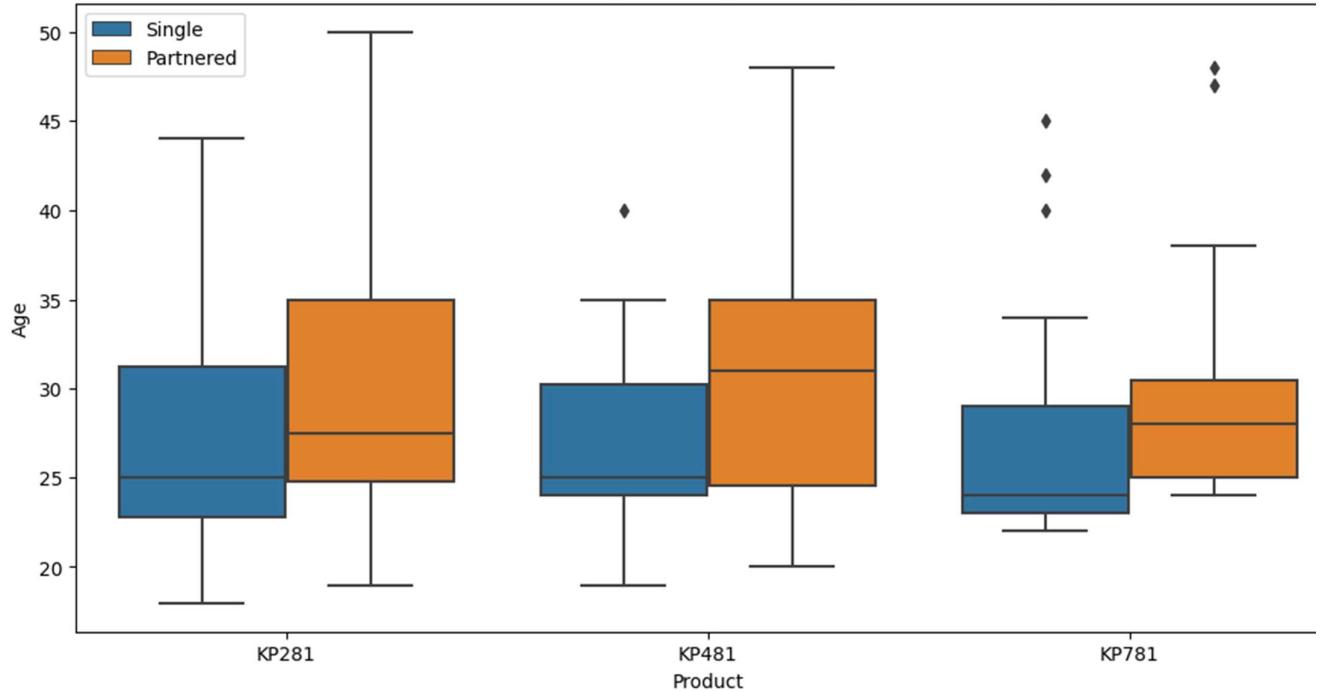
```
#mean miles per group of customers per product type  
data.groupby("Product")["Miles"].agg(lambda x: x.mean())
```

```
Product  
KP281    82.787500  
KP481    87.933333  
KP781    166.900000  
Name: Miles, dtype: float64
```

```
#mode marital status group of customer per product type  
data.groupby("Product")["MaritalStatus"].agg(lambda x: x.mode())
```

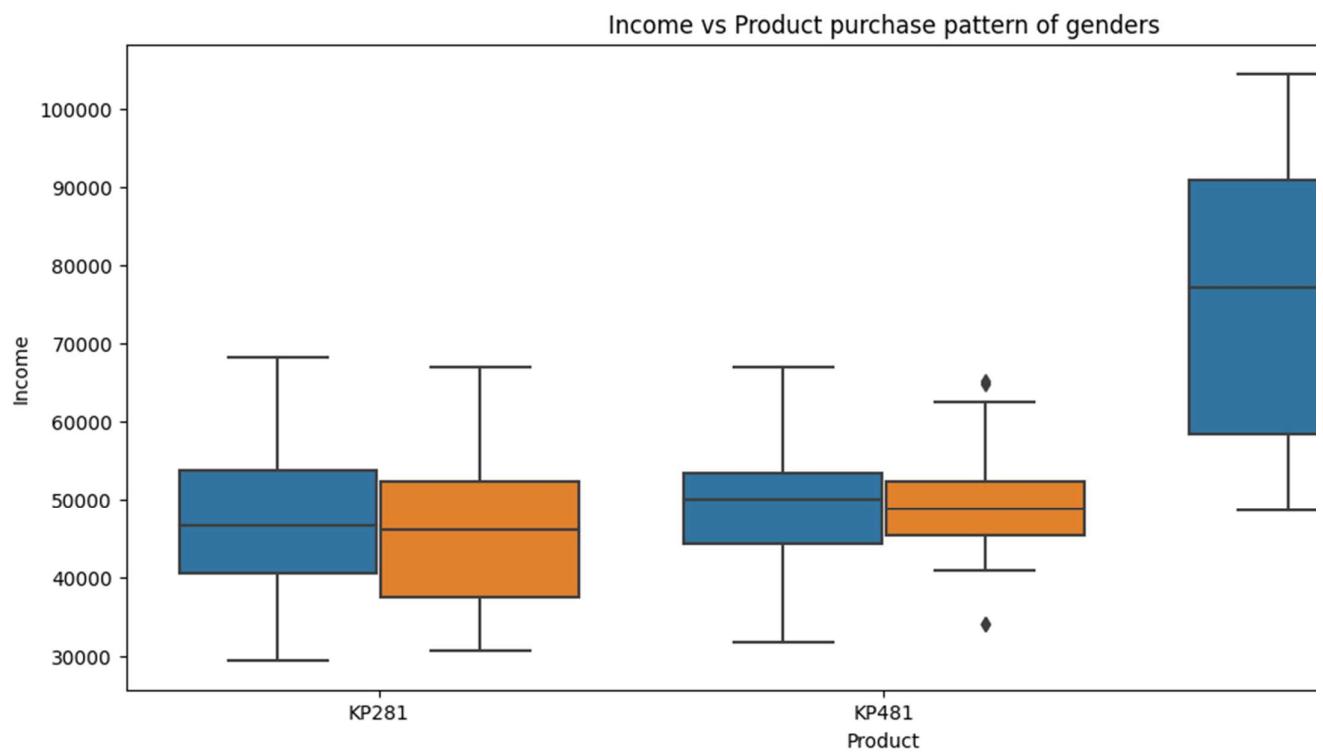
```
Product  
KP281    Partnered  
KP481    Partnered  
KP781    Partnered  
Name: MaritalStatus, dtype: object
```

Marital Status vs Product purchase pattern of partnered and singles



Most users who purchase the products are partnered, and we can see that in the product KP481 the mean of ages of partnered users are much higher than that of users who are singles.

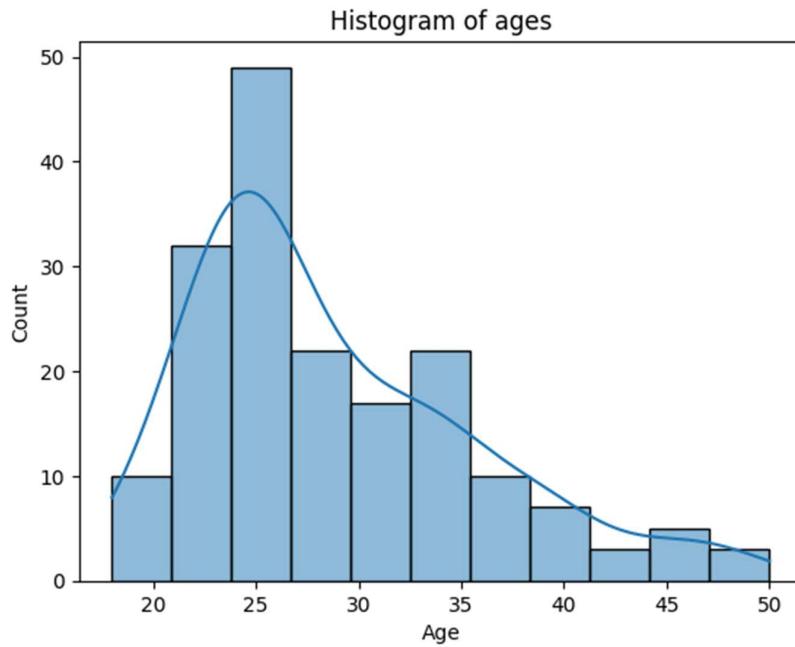
Product KP281 – caters to users who have a wide range of ages, where as KP781 caters to a smaller age group.



For KP281 users – the mean income levels are almost similar.

For KP481 users – the mean income level of males greater than females

For KP781 users – the mean income level of males greater than females and these users have higher incomes than the rest of the users who purchased the other two products.



Most of the users belong to the age group of mid 20s.

The pattern of purchases increases with age up to 25 then a sharp decline till 30 and a small increase in 35 then gradually it decreases.

Probability of user buying K281: 0.444

Probability of user buying K481: 0.333

Probability of user buying K781: 0.222

```
pd.crosstab(data["Gender"], data["Product"], normalize = True)
```

Product	KP281	KP481	KP781	
Gender				grid icon
Female	0.222222	0.161111	0.038889	bar chart icon
Male	0.222222	0.172222	0.183333	

The probability of males buying KP281 is 0.22, KP481 is 0.16 and KP781 is 0.038

The probability of females buying KP281 is 0.22, KP481 is 0.17 and KP781 is 0.183

The product KP781 is popular among female customers whereas KP281 for males.

```
pd.crosstab(data["MaritalStatus"], data["Product"], normalize = True)
```

Product	KP281	KP481	KP781	
MaritalStatus				
Partnered	0.266667	0.200000	0.127778	
Single	0.177778	0.133333	0.094444	

The probability of partnered users buying KP281 – 0.266, KP481 – 0.2, KP781 – 0.127

The probability of single users buying KP281 – 0.177, KP481 – 0.133, KP781 – 0.094

Partnered users have higher probability of purchasing KP281 and singles also have higher probability of purchasing KP281.

Customer Profile for product- KP281

Basic Information:

Total users - 80

Number of users per gender:

Male 40

Female 40

Probability of male user is 0.5 and probability of female user is 0.5.

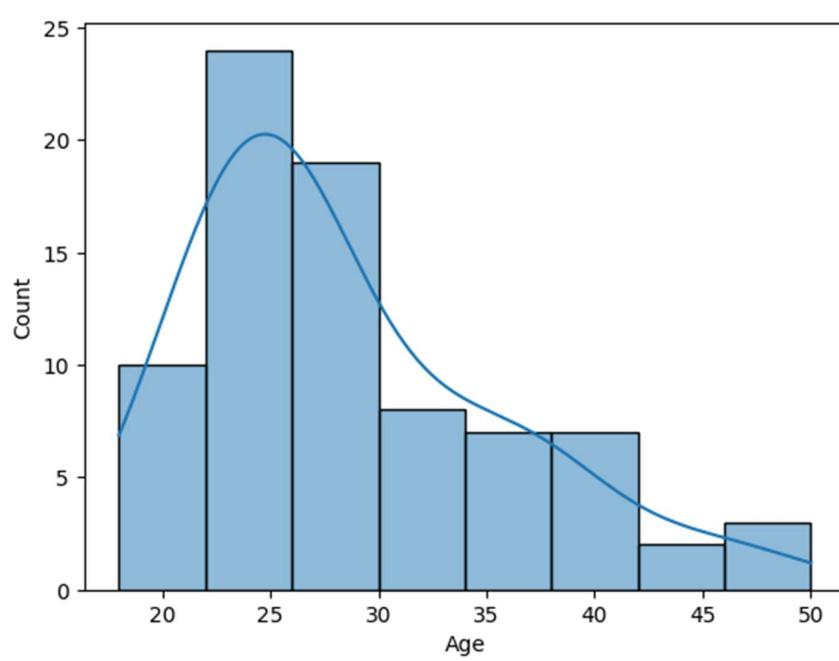
Mean of age of users = 28.55

Mean of income of users = 46418.025

Mean of fitness level = 2.9625

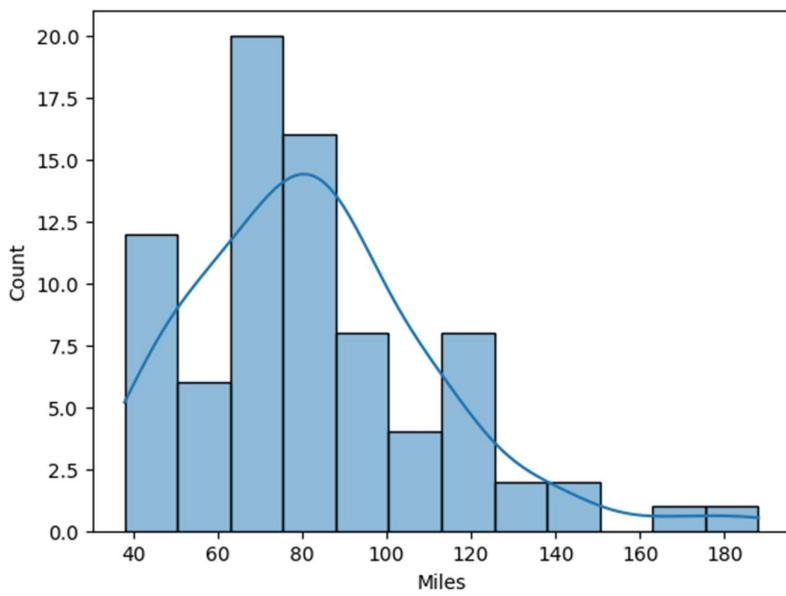
Mean of usage = 3.0875

Mean of miles = 82.7875

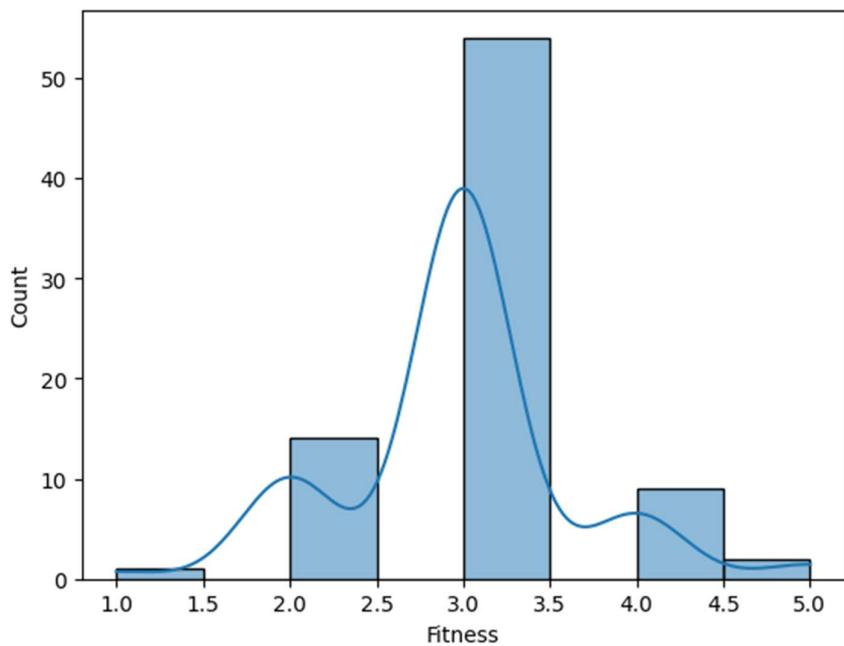


The distribution of ages for KP281 is like that of the total products combined age distribution.

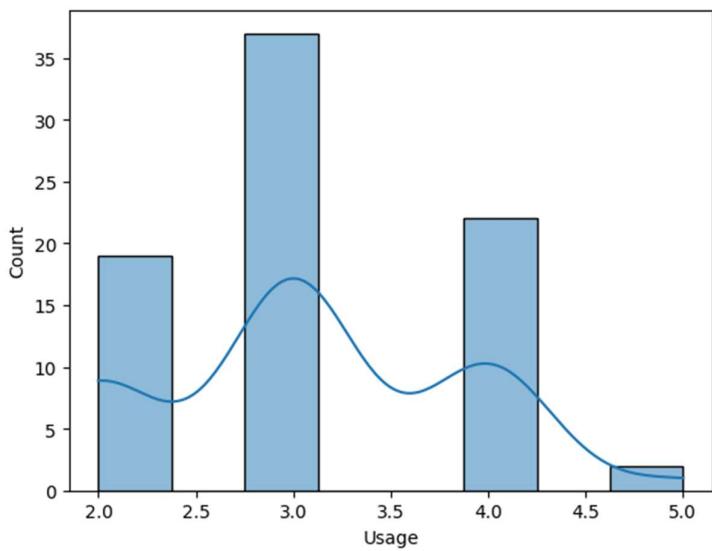
Most pf the users belong to the age group of mid 20s



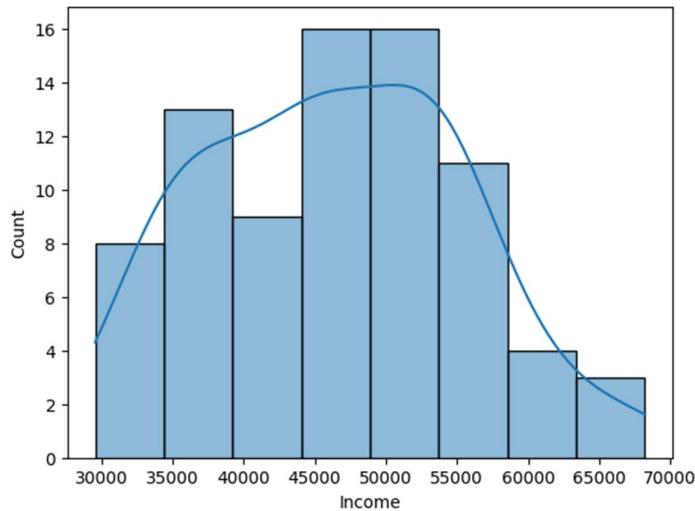
Intensity of users of KP281 peaks at 60-80 miles.



Fitness levels of these users also peaks at 3-3.5



Usage is also moderate with 3 being the most popular choice among these users.

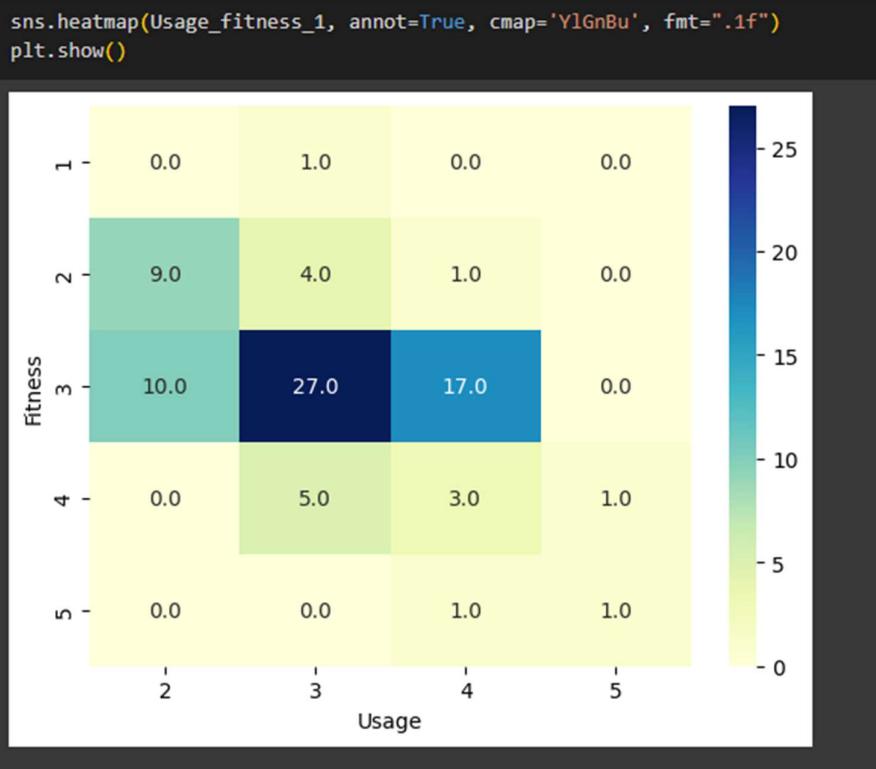


Most of the users who purchased KP281 have an income between 45k to 55k, and people who have higher income mostly don't prefer this model.

Detailed look into Usage and fitness levels:

```
Usage_fitness = pd.crosstab(df_1["Fitness"], df_1["Usage"], margins = True)
Usage_fitness
```

Usage	2	3	4	5	All	
Fitness						
1	0	1	0	0	1	
2	9	4	1	0	14	
3	10	27	17	0	54	
4	0	5	3	1	9	
5	0	0	1	1	2	
All	19	37	22	2	80	



Most users of KP281 belong to the fitness level of 3 who uses the machine 3 times in a week.

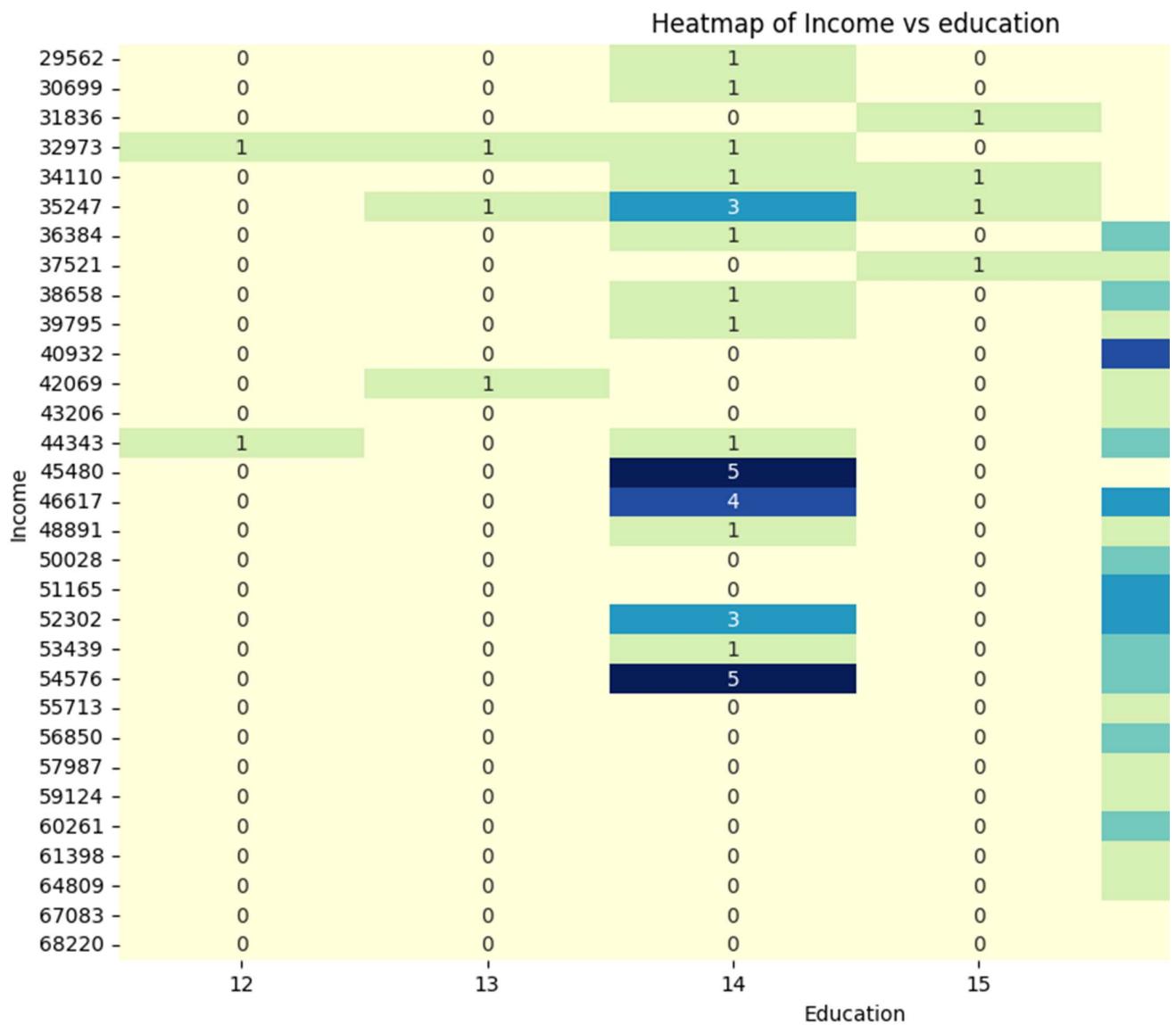
- Probability of user belonging to fitness level 1: 0.0125
- Probability of user belonging to fitness level 2: 0.175
- **Probability of user belonging to fitness level 3: 0.675**
- Probability of user belonging to fitness level 4: 0.1125
- Probability of user belonging to fitness level 5: 0.025

- Probability of user using the machine 2 times: 0.2375
- **Probability of user using the machine 3 times: 0.4625**
- Probability of user using the machine 4 times: 0.275
- Probability of user using the machine 5 times: 0.025

- **probability if usage of machine 3 times and fitness level 3: 0.23**
- probability if usage of machine 4 times and fitness level 3: 0.14
- probability if usage of machine 2 times and fitness level 3: 0.08
- probability if usage of machine 5 times and fitness level 3: 0.0

- Probability of being a man and usage 3: 0.11875

- Probability of being a woman and usage 3: 0.1125



- Probability of user with 14 years of education: 0.375
- Probability of user with 16 years of education: 0.4875
- Probability of users belonging to income of [45k - 55k]: 0.45

Ideal Customer Profile for Product KP281

Demographics:

Age:

Target Age Range: 25-35 years old

Most users are mid-20s, so targeting customers in this age group is crucial.

Gender:

Both male and female customers are equally targeted.

Education:

Preferably 14-16 years of education.

Economic Status:

Income:

Ideal income range: 45,000 - 55,000 per year.

Focus on individuals within this income bracket for higher conversion rates.

Lifestyle & Behaviour:

Fitness Level:

Primary focus on customers with a fitness level of 3.

Secondary focus on levels 2 and 4.

Machine Usage:

Target customers who use the machine 2-4 times per week.

Prioritize those who use it 3 times per week (highest probability).

Miles Intensity:

Concentrate on customers aiming for 60-80 miles as they constitute the majority.

Preferences & Purchase Habits:

Usage & Fitness Correlation:

Offer specialized programs or incentives for users who prefer a specific usage and fitness correlation (e.g., 3 times a week & fitness level 3).

Income-Product Relation:

Tailor marketing or promotional offers for customers within the specified income range to attract more sales.

Education Insights:

Create content or guides suitable for customers with 14-16 years of education to engage and educate them effectively.

Customer Profile for product – KP481

Basic Information:

Total users - 60

Number of users per gender:

Male 31

Female 29

Probability of male user is 0.5 and probability of female user is 0.52

Probability of female user is 0.5 and probability of male user is 0.48

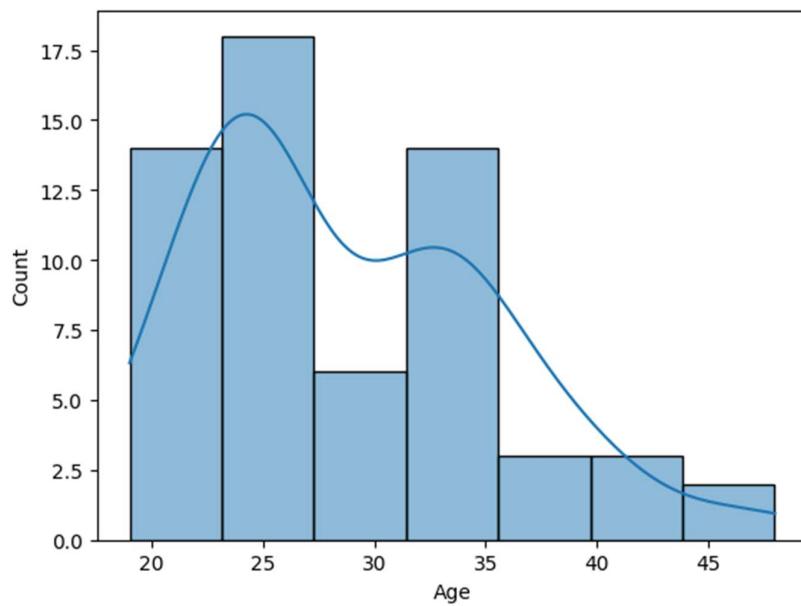
Mean of age of users = 28.9

Mean of income of users = 48973

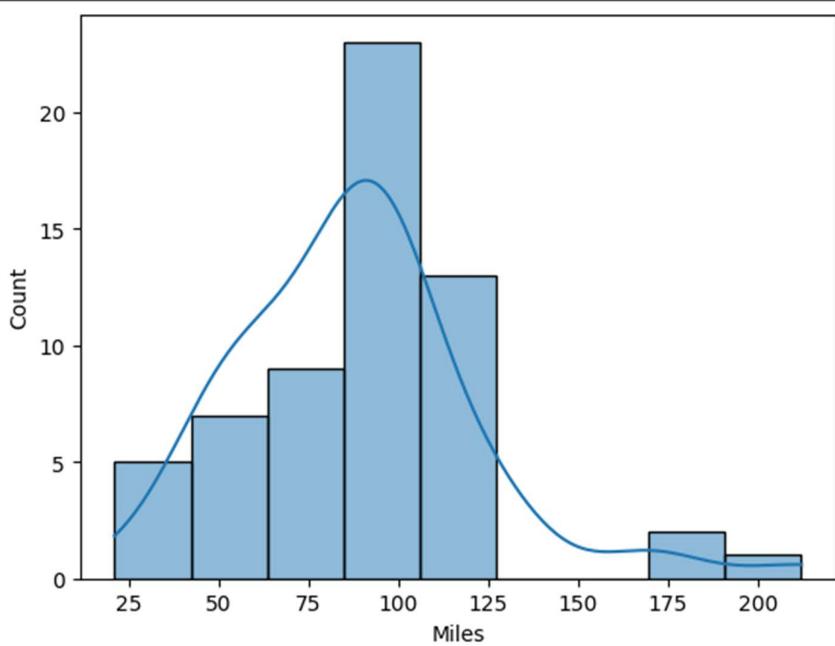
Mean of fitness level = 2.9

Mean of usage = 3.066

Mean of miles = 87.933

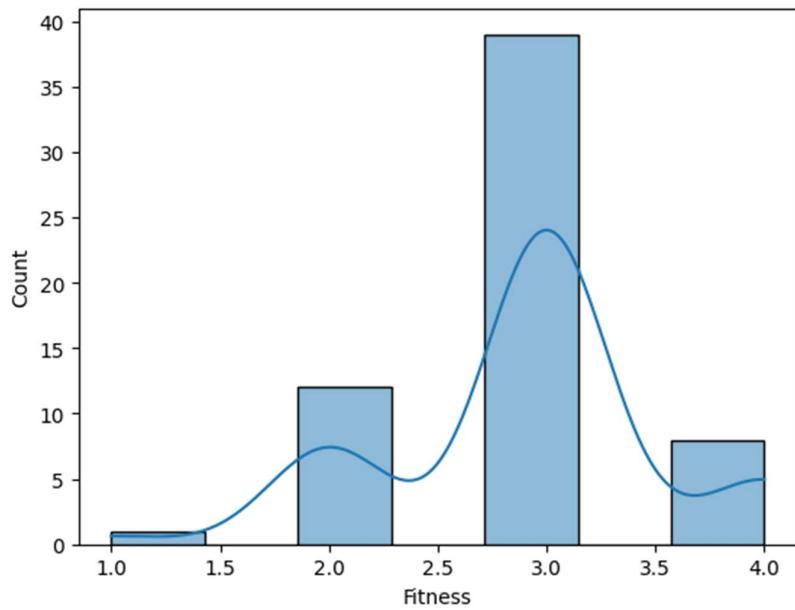


For KP481 the age is spread from 20- 45, and peaks from 25- 30.

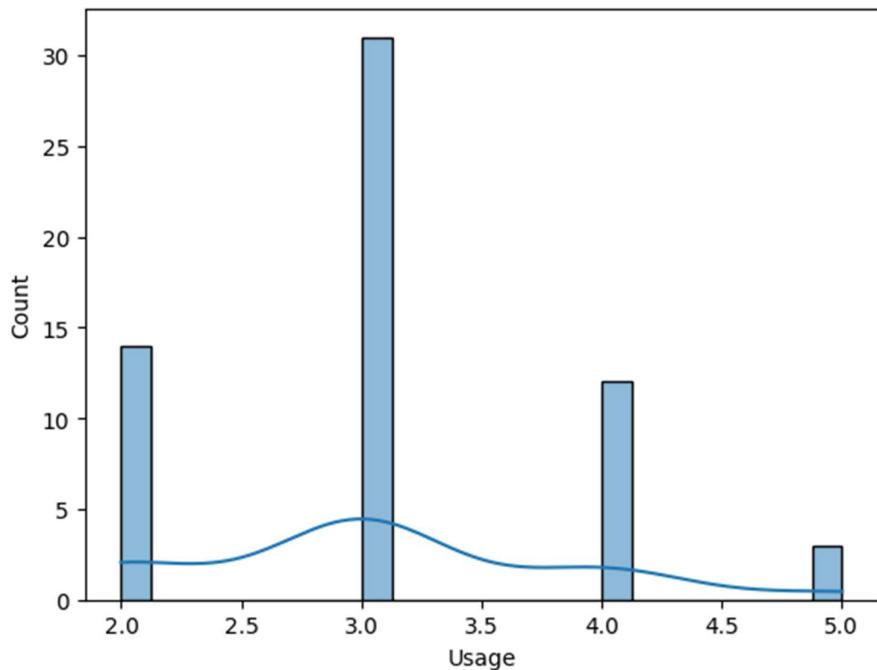


Intensity of users is also at around 80-100, then decreasing to 0 by 125 – 175 then a small spike from 175- 200.

There are few customers who use KP481 for high intensity workouts.



The fitness level of users also is in the range of 1 to 4, so KP481 users max out at fitness level 4.

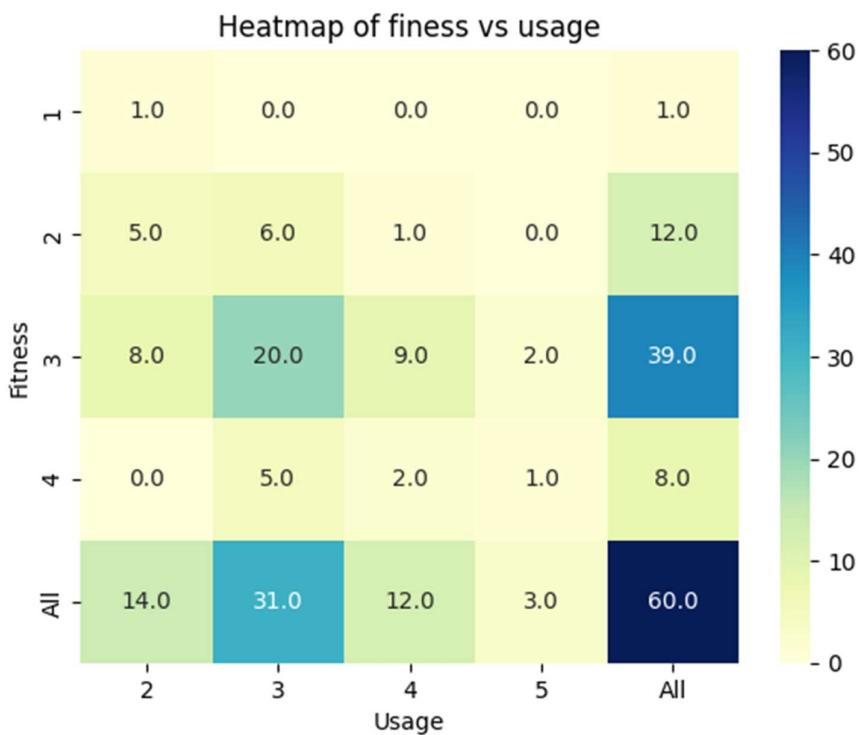


Usage of the product ranges from 2 to 5 time/week, most popular choice being 3.

Detailed look into Usage and fitness levels:

```
Usage_fitness_2 = pd.crosstab(df_2["Fitness"], df_2["Usage"], margins = True)  
Usage_fitness_2
```

Usage	2	3	4	5	All	
Fitness						
1	1	0	0	0	1	
2	5	6	1	0	12	
3	8	20	9	2	39	
4	0	5	2	1	8	
All	14	31	12	3	60	



- Probability of user belonging to fitness level 1: 0.017
- Probability of user belonging to fitness level 2: 0.2
- **Probability of user belonging to fitness level 3: 0.65**
- Probability of user belonging to fitness level 4: 0.13
- Probability of user belonging to fitness level 5: 0.03

- Probability of user using the machine 2 times: 0.23
- **Probability of user using the machine 3 times: 0.52**
- Probability of user using the machine 4 times: 0.2
- Probability of user using the machine 5 times: 0.05

```
pd.crosstab(df_1["Fitness"], df_1["Usage"], normalize = True)
```

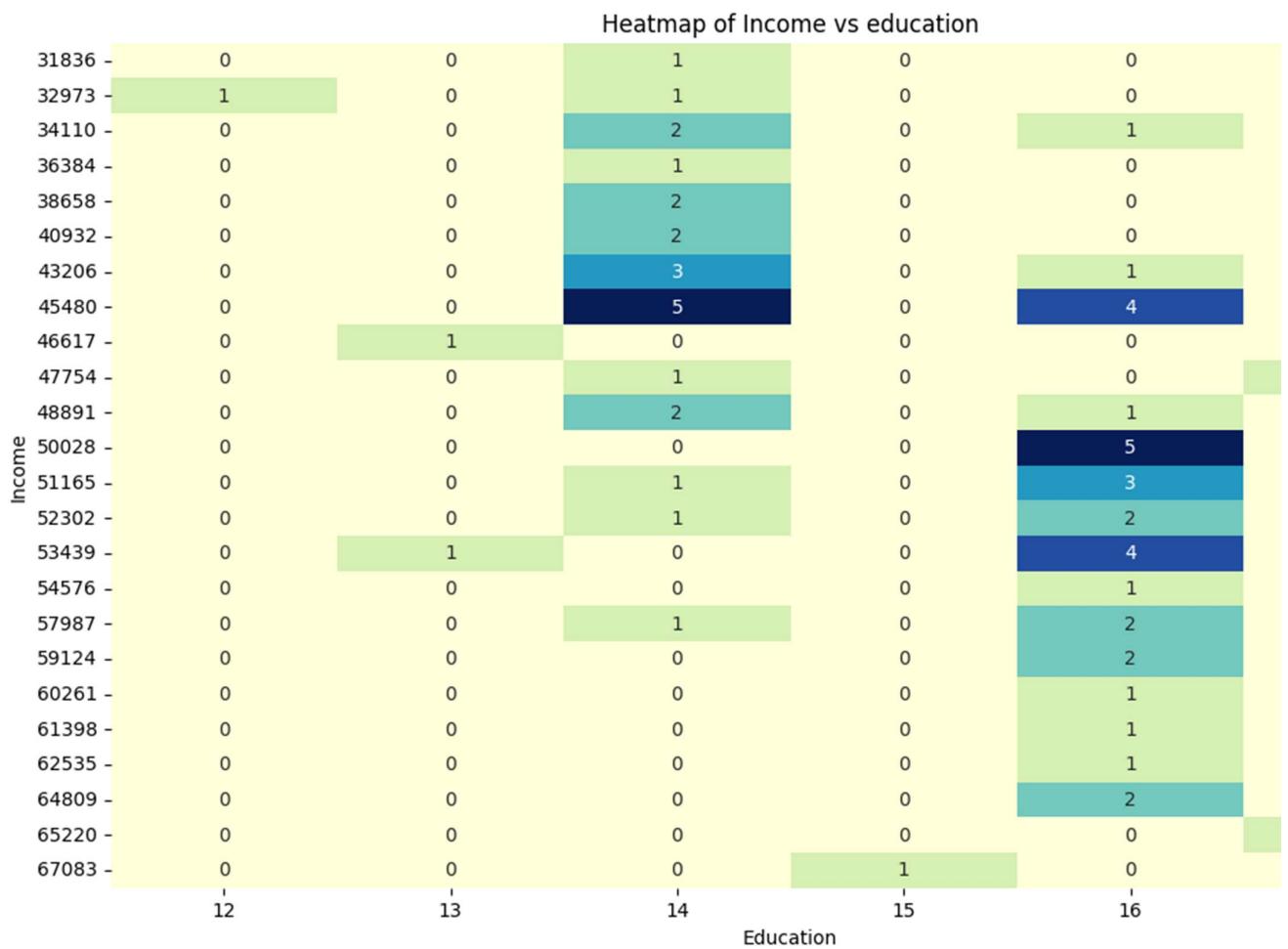
Usage	2	3	4	5	
Fitness					
1	0.0000	0.0125	0.0000	0.0000	
2	0.1125	0.0500	0.0125	0.0000	
3	0.1250	0.3375	0.2125	0.0000	
4	0.0000	0.0625	0.0375	0.0125	
5	0.0000	0.0000	0.0125	0.0125	

- probability if usage of machine 3 times and fitness level 3: 0.22
- probability if usage of machine 4 times and fitness level 3: 0.1
- probability if usage of machine 2 times and fitness level 3: 0.09
- probability if usage of machine 5 times and fitness level 3: 0.02

```
pd.crosstab(df_2["Gender"], df_2["Usage"], normalize = True)
```

Usage	2	3	4	5	
Gender					
Female	0.116667	0.233333	0.083333	0.05	
Male	0.116667	0.283333	0.116667	0.00	

- Probability of being a man and usage 3: 0.27
- Probability of being a woman and usage 3: 0.25



- Probability of user with 14 years of education: 0.38
- Probability of user with 16 years of education: 0.52
- Probability of users belonging to income of [45k - 55k]: 0.55

Ideal Customer Profile for Product KP481

Demographics:

Age:

Target Age Range: 25-30 years old with a spread from 20-45.

Primarily focusing on customers in their late 20s.

Gender:

Slightly inclined towards male users.

Economic Status:

Income:

Ideal income range: 45,000 - 55,000 per year.

Concentrate on users falling within this income bracket.

Lifestyle & Behaviour:

Fitness Level:

Prioritize customers at fitness levels 3 and 4, followed by levels 2 and 5.

Create engagement strategies focusing on higher fitness levels.

Machine Usage:

Concentrate on users who utilize the machine 2-4 times per week.

Priority for users engaging 3 times a week (highest probability).

Miles Intensity:

Focus on customers aiming for 80-100 miles with small spikes at 175-200 miles.

So, for customers who are like that of KP281 but prefer more intensity can opt for KP481.

Preferences & Purchase Habits:

Usage & Fitness Correlation:

Highlight tailored workout plans that resonate with the preference for 3 times a week usage and fitness level 3.

Education Insights:

Develop content and guides suitable for customers with 14-16 years of education to resonate with their learning preferences.

Income-Product Relation:

Create offers or promotions for individuals in the specified income range to increase product adoption.

Customer Profile for product – KP781

Basic Information:

Total users - 40

Number of users per gender:

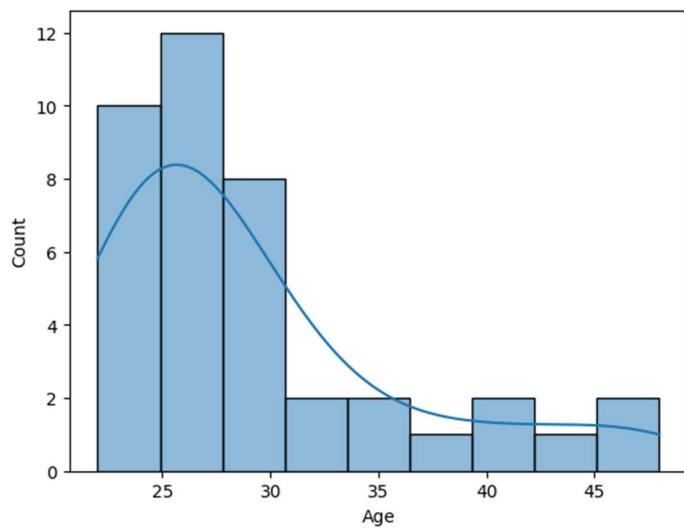
Male 33

Female 7

Probability of male user is 0.5 and probability of female user is 0.825.

Probability of female user is 0.5 and probability of female user is 0.175.

df_3.describe()						
	Age	Education	Usage	Fitness	Income	Miles
count	40.000000	40.000000	40.000000	40.000000	40.000000	40.000000
mean	29.100000	17.325000	4.775000	4.625000	75441.57500	166.900000
std	6.971738	1.639066	0.946993	0.667467	18505.83672	60.066544
min	22.000000	14.000000	3.000000	3.000000	48556.00000	80.000000
25%	24.750000	16.000000	4.000000	4.000000	58204.75000	120.000000
50%	27.000000	18.000000	5.000000	5.000000	76568.50000	160.000000
75%	30.250000	18.000000	5.000000	5.000000	90886.00000	200.000000
max	48.000000	21.000000	7.000000	5.000000	104581.00000	360.000000

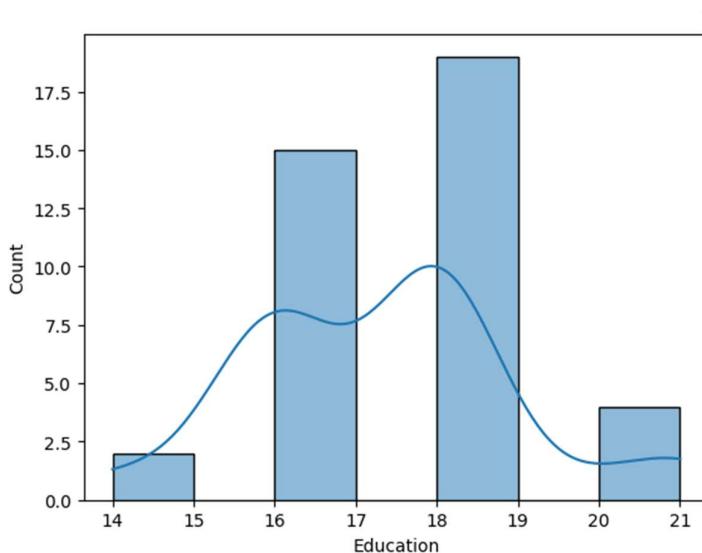


Age:

The ages of 40 customers range from 22 to 48 years old.

Most customers fall between 24.75 and 30.25 years old.

On average, customers are approximately 29 years old.

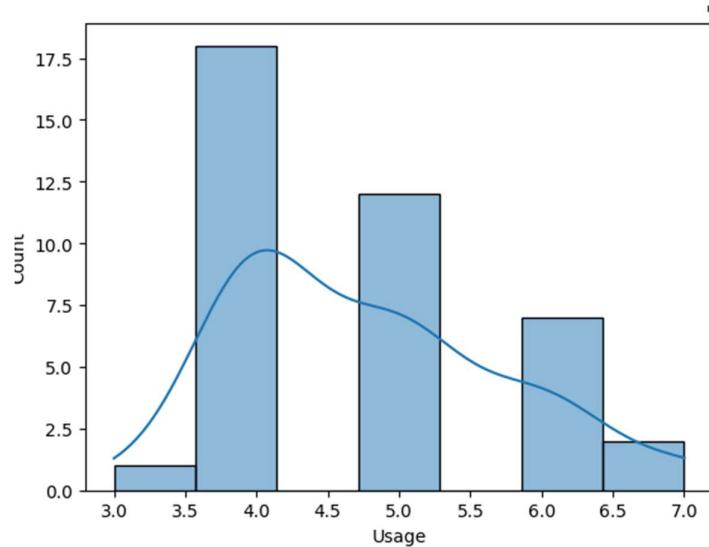


Education:

Customers' education spans from 14 to 21 years.

Around 50% of customers have completed at least 18 years of education.

The average education level among customers is roughly 17.33 years.

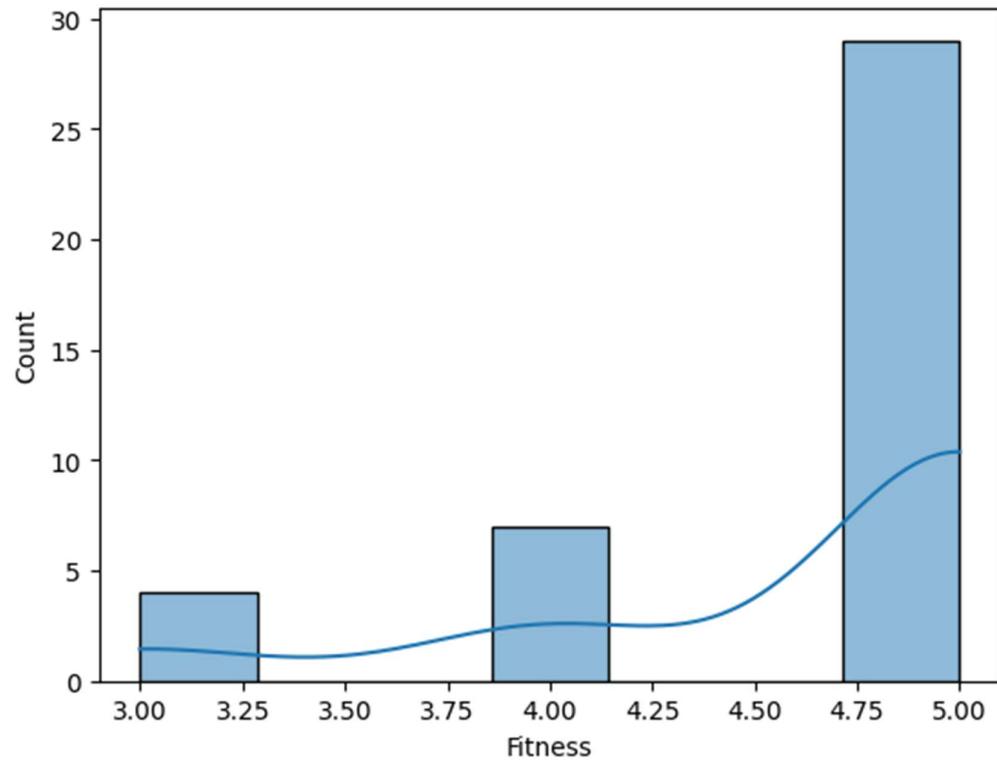


Usage:

Customers use the machine between 3 and 7 times per week.

The most common usage frequency is around 4 to 5 times per week.

On average, customers use the machine approximately 4.78 times per week.

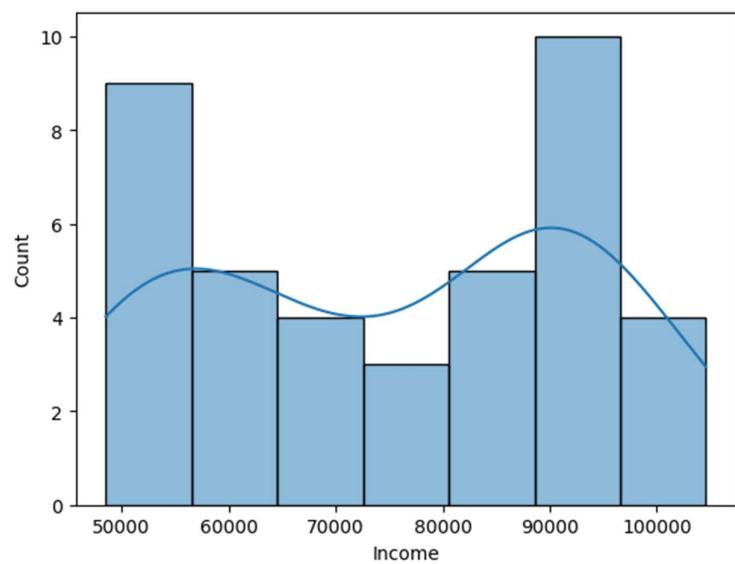


Fitness:

The fitness level of customers ranges from 3 to 5 (on a scale of 1 to 5).

Most customers have a fitness level between 4 and 5.

The average fitness level among customers is about 4.63.

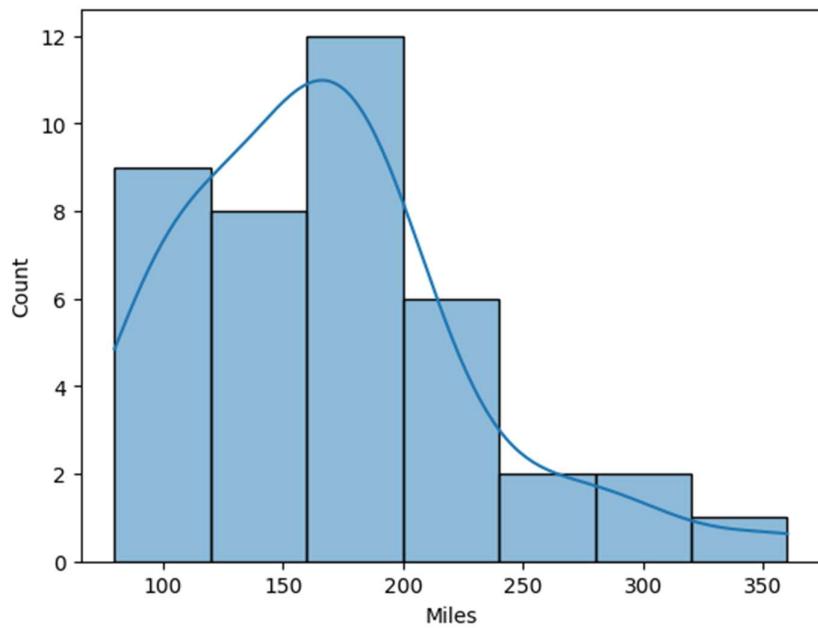


Income:

Customers' incomes vary from 48,556 to 104,581.

Around 50% of customers earn between 58,204.75 and 90,886.

On average, customers have an income of approximately 75,441.58.

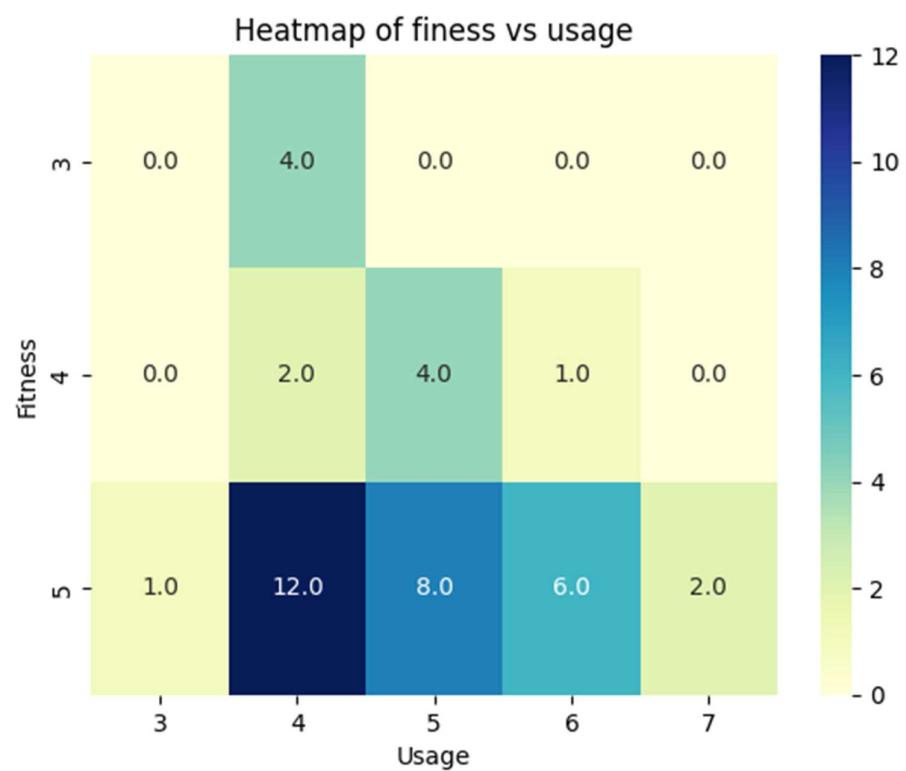


Miles:

Customers cover distances ranging from 80 to 360 miles.

Half of the customers cover distances between 120 and 200 miles.

On average, customers cover about 166.9 miles.



Usage	3	4	5	6	7	All		
Fitness								
	3	0	4	0	0	0	4	
3	0	2	4	1	0	7		
4	1	12	8	6	2	29		
All	1	18	12	7	2	40		

- Probability of user belonging to fitness level 3: 0.1
- Probability of user belonging to fitness level 4: 0.175
- Probability of user belonging to fitness level 5: 0.725

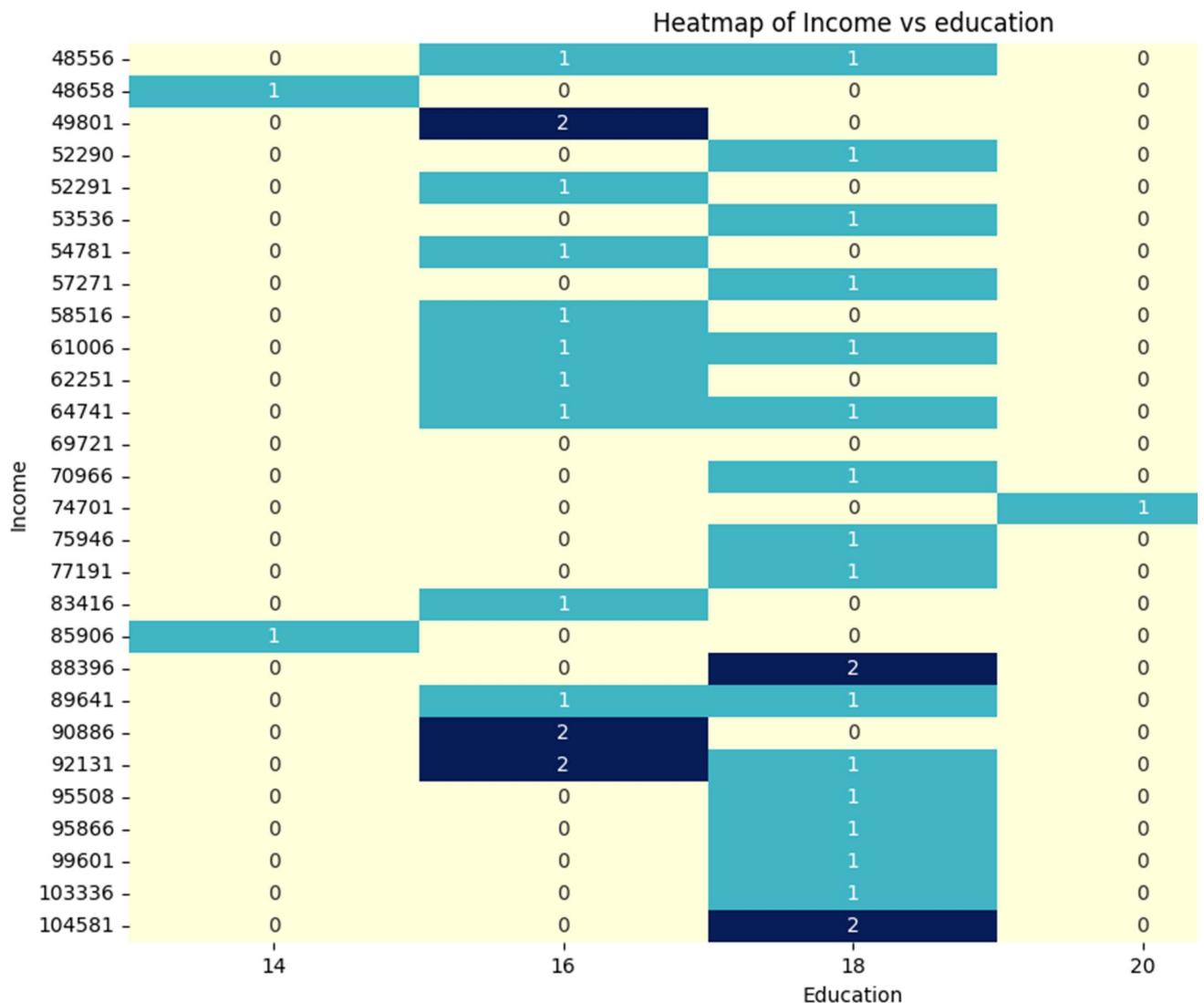
- Probability of user using the machine 3 times: 0.025
- Probability of user using the machine 4 times: 0.45
- Probability of user using the machine 5 times: 0.3
- Probability of user using the machine 6 times: 0.175
- Probability of user using the machine 7 times: 0.05

Usage	3	4	5	6	7		
Fitness							
3	0.000	0.10	0.0	0.000	0.00		
4	0.000	0.05	0.1	0.025	0.00		
5	0.025	0.30	0.2	0.150	0.05		

- probability if usage of machine 3 times and fitness level 5: 0.02
- probability if usage of machine 4 times and fitness level 5: 0.22
- probability if usage of machine 5 times and fitness level 5: 0.14
- probability if usage of machine 6 times and fitness level 5: 0.11
- probability if usage of machine 7 times and fitness level 5: 0.04

Usage	3	4	5	6	7
Gender					
Female	0.000	0.05	0.075	0.050	0.00
Male	0.025	0.40	0.225	0.125	0.05

- Probability of being a man and usage 5: 0.185
- Probability of being a man and usage 4: 0.33
- Probability of being a woman and usage 5: 0.013



- Probability of user with 16 years of education: 0.375
- Probability of user with 18 years of education: 0.475
- Probability of users belonging to income of [58k and 90k]: 0.50

Ideal Customer Profile for Product: KP781

Basic Information:

Total Users: 40

Gender Distribution:

Male: 33 users (82.5%)

Female: 7 users (17.5%)

Demographics:

Age:

Ranges from 22 to 48 years old.

Majority fall between 24.75 and 30.25 years old.

Average age is approximately 29 years.

Education:

Spans from 14 to 21 years of education.

Around 50% have completed at least 18 years of education.

Average education level is roughly 17.33 years.

Product Usage:

Frequency:

Customers use the machine between 3 and 7 times per week.

Most common usage is around 4 to 5 times per week.

Average usage frequency is about 4.78 times per week.

Health and Fitness:

Fitness Level:

Ranges from 3 to 5 (on a scale of 1 to 5).

Majority are at fitness levels 4 and 5.

Average fitness level among customers is about 4.63.

Financial Status:

Income:

Incomes range from \$48,556 to \$104,581.

Around 50% earn between \$58,204.75 and \$90,886.

Average income is approximately \$75,441.58.

Workout Metrics:

Miles Covered:

Customers cover distances ranging from 80 to 360 miles.

Half of the customers cover distances between 120 and 200 miles.

On average, customers cover about 166.9 miles.

Usage and Fitness Probability:

Fitness Level 3:

Probability of users belonging to fitness level 3: 10%.

Fitness Level 4 and 5:

Probability of users belonging to fitness level 4: 17.5%.

Probability of users belonging to fitness level 5: 72.5%.

Machine Usage Probability:

Usage Frequency:

Probability of users using the machine 3 times: 2.5%.

Probability of users using the machine 4 times: 45%.

Probability of users using the machine 5 times: 30%.

Probability of users using the machine 6 times: 17.5%.

Probability of users using the machine 7 times: 5%.

Probability by Gender and Usage:

Male usage:

Probability of being a man and using the machine 5 times: 18.5%.

Probability of being a man and using the machine 4 times: 33%.

Female usage:

Probability of being a woman and using the machine 5 times: 1.3%.

Education and Income Probability:

Probability of users with 16 years of education: 37.5%.

Probability of users with 18 years of education: 47.5%.

Probability of users belonging to income range [58k and 90k]: 50%.

Ideal Customer Profiles:

KP281 Ideal Customer:

Demographics: Mid-20s, balanced gender, moderate income (45k - 55k).

Lifestyle: Moderate usage (3 times/week), fitness level 3.

Preferences: Preferably 14-16 years of education.

Marketing Focus: Emphasize moderate usage plans, tailored for fitness level 3, and mid-income range.

KP481 Ideal Customer:

Demographics: Primarily late 20s, slightly more males, moderate income (45k - 55k).

Lifestyle: Moderate usage (2-4 times/week), fitness levels 3 and 4.

Preferences: Aim for users with 14-16 years of education.

Marketing Focus: Target users preferring moderate usage and fitness levels 3 and 4 in the specified income range.

KP781 Ideal Customer:

Demographics: Diverse age range, higher education (18+ years), higher income (>80000).

Lifestyle: Usage 4-5 times/week, higher fitness (level 5).

Preferences: Users with higher education and income.

Marketing Focus: Target higher-educated individuals and high-income brackets, emphasize higher fitness and usage patterns.

Actionable insights and Recommendations:

Product: KP281

- Targeted Demographics:
- Age: Focus on customers aged 25-35, especially those in their mid-20s.
- Gender: Equally target both male and female customers.
- Education: Create content suitable for individuals with 14-16 years of education.
- Income: Concentrate marketing efforts on individuals earning between 45,000 - 55,000 per year.

- Lifestyle & Behaviour:
- Fitness Level: Prioritize customers at fitness level 3, followed by levels 2 and 4.
- Machine Usage: Target users who use the machine 2-4 times per week, emphasizing 3 times a week usage.
- Miles Intensity: Concentrate on customers aiming for 60-80 miles.

- Preferences & Purchase Habits:
- Usage & Fitness Correlation: Offer specialized programs for users preferring 3 times a week usage and fitness level 3.
- Income-Product Relation: Tailor marketing offers for customers within the specified income range.
- Education Insights: Create engaging content for users with 14-16 years of education to facilitate better understanding and engagement.

Product: KP481

- Targeted Demographics:
- Age: Primarily target customers aged 25-30, with a spread from 20-45.
- Gender: Slightly inclined towards male users.
- Income: Concentrate on users falling within the income bracket of 45,000 - 55,000 per year.

- Lifestyle & Behaviour:
- Fitness Level: Focus on customers at fitness levels 3 and 4, followed by levels 2 and 5.
- Machine Usage: Prioritize users who use the machine 2-4 times per week, especially those engaging 3 times a week.
- Miles Intensity: Target customers aiming for 80-100 miles, with small spikes at 175-200 miles.

- Preferences & Purchase Habits:
- Usage & Fitness Correlation: Highlight tailored workout plans for 3 times a week usage and fitness level 3.
- Education Insights: Develop content suitable for users with 14-16 years of education to cater to their learning preferences.

- Income-Product Relation: Create targeted offers for individuals in the specified income range to drive product adoption.

Product: KP781

- Targeted Demographics:
- Age: Focus on customers aged 24-30 primarily, with a broad age range from 22 to 48.
- Gender: Predominantly male users.
- Income: Target users within the income range of 58,000 - 90,000 per year.
- Lifestyle & Behaviour:
- Fitness Level: Prioritize customers at fitness levels 4 and 5, followed by level 3.
- Machine Usage: Concentrate on users who use the machine 4-5 times per week, especially males.
- Miles Intensity: Focus on customers covering distances between 120 and 200 miles.
- Preferences & Purchase Habits:
- Usage & Fitness Correlation: Develop specialized programs for 4-5 times a week usage and higher fitness levels.
- Education Insights: Create content suitable for users with 16-18 years of education for effective engagement.
- Income-Product Relation: Craft targeted promotions for individuals within the specified income range to boost product adoption.