Q1 Find the number of episodes

Q2 Min , max , mean of asked amount , asked equity and asked valuation wise

Q3 Brand name in sharks in which 2,3, or 4 sharks have invested

Q4 Episode wise Min, Max of sharks invested

Q5 No. of sharks the brand hacve invested

Q6 Brand name who asked for 1 crore and got the deal

Q7 Find the number of brands participated in this show and what there names

Q8 Find appearance of each sharks

Q9 How many enterpreneur were present

Q10 How many times each sharks invested the deal

Q11 Find the equity percentage each sharks gets

Q12 Find the total number of amount invested in this show

In [1]:
```
import pandas as pd

df=pd.read_csv('Shark Tank India Dataset.csv')
```

In [2]:
```
df
```

Out[2]:

	episode_number	pitch_number	brand_name	idea	deal	pitcher_ask_amount	ask_equ
0	1	1	BluePine Industries	Frozen Momos	1	50.0	
1	1	2	Booz scooters	Renting e-bike for mobility in private spaces	1	40.0	
2	1	3	Heart up my Sleeves	Detachable Sleeves	1	25.0	
3	2	4	Tagz Foods	Healthy Potato Chips	1	70.0	
4	2	5	Head and Heart	Brain Development Course	0	50.0	
...	...	...	...	...	...	...	
112	34	113	Green Protein	Plant-Based Protein	0	60.0	
113	34	114	On2Cook	Fastest Cooking Device	0	100.0	
114	35	115	Jain Shikanji	Lemonade	1	40.0	
115	35	116	Woloo	Washroom Finder	0	50.0	
116	35	117	Elcare India	Carenting for Elders	0	100.0	

117 rows × 28 columns

In [3]:
```
df.columns
```

Out[3]:
```
Index(['episode_number', 'pitch_number', 'brand_name', 'idea', 'deal',
       'pitcher_ask_amount', 'ask_equity', 'ask_valuation', 'deal_amount',
       'deal_equity', 'deal_valuation', 'ashneer_present', 'anupam_present',
       'aman_present', 'namita_present', 'vineeta_present', 'peyush_present',
       'ghazal_present', 'ashneer_deal', 'anupam_deal', 'aman_deal',
       'namita_deal', 'vineeta_deal', 'peyush_deal', 'ghazal_deal',
       'total_sharks_invested', 'amount_per_shark', 'equity_per_shark'],
      dtype='object')
```

In [4]:
```
df.isnull().sum()#findind if there is any null value
```

Out[4]:
```
episode_number           0
pitch_number             0
brand_name               0
idea                     0
deal                     0
pitcher_ask_amount       0
ask_equity               0
ask_valuation            0
deal_amount              0
deal_equity              0
deal_valuation           0
ashneer_present          0
anupam_present           0
aman_present             0
namita_present           0
vineeta_present          0
peyush_present           0
ghazal_present           0
ashneer_deal             0
anupam_deal              0
aman_deal                0
namita_deal              0
vineeta_deal             0
peyush_deal              0
ghazal_deal              0
total_sharks_invested    0
amount_per_shark         0
equity_per_shark         0
dtype: int64
```

In [5]:
```
df.info() #finding no. categorical and numerical data
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 117 entries, 0 to 116
Data columns (total 28 columns):
 #   Column                 Non-Null Count  Dtype  
---  ------                 --------------  -----  
 0   episode_number         117 non-null    int64  
 1   pitch_number           117 non-null    int64  
 2   brand_name             117 non-null    object 
 3   idea                   117 non-null    object 
 4   deal                   117 non-null    int64  
 5   pitcher_ask_amount     117 non-null    float64
 6   ask_equity             117 non-null    float64
 7   ask_valuation          117 non-null    float64
 8   deal_amount            117 non-null    float64
 9   deal_equity            117 non-null    float64
 10  deal_valuation         117 non-null    float64
 11  ashneer_present        117 non-null    int64  
 12  anupam_present         117 non-null    int64  
 13  aman_present           117 non-null    int64  
 14  namita_present         117 non-null    int64  
 15  vineeta_present        117 non-null    int64  
 16  peyush_present         117 non-null    int64  
 17  ghazal_present         117 non-null    int64  
 18  ashneer_deal           117 non-null    int64  
 19  anupam_deal            117 non-null    int64  
 20  aman_deal              117 non-null    int64  
 21  namita_deal            117 non-null    int64  
 22  vineeta_deal           117 non-null    int64  
 23  peyush_deal            117 non-null    int64  
 24  ghazal_deal            117 non-null    int64  
 25  total_sharks_invested  117 non-null    int64  
 26  amount_per_shark       117 non-null    float64
 27  equity_per_shark       117 non-null    float64
dtypes: float64(8), int64(18), object(2)
memory usage: 25.7+ KB
```

In [6]:
```
df.columns
```

Out[6]:
```
Index(['episode_number', 'pitch_number', 'brand_name', 'idea', 'deal',
       'pitcher_ask_amount', 'ask_equity', 'ask_valuation', 'deal_amount',
       'deal_equity', 'deal_valuation', 'ashneer_present', 'anupam_present',
       'aman_present', 'namita_present', 'vineeta_present', 'peyush_present',
       'ghazal_present', 'ashneer_deal', 'anupam_deal', 'aman_deal',
       'namita_deal', 'vineeta_deal', 'peyush_deal', 'ghazal_deal',
       'total_sharks_invested', 'amount_per_shark', 'equity_per_shark'],
      dtype='object')
```

In [7]:
```
maxthresold = df['pitcher_ask_amount'].quantile(0.95)
minthresold = df['pitcher_ask_amount'].quantile(0.05)
```

In [8]:
```
maxthresold
```

Out[8]:
```
120.99999999999994
```

In [9]:
```
minthresold
```

Out[9]: 25.0

In [10]:
```
df[df['pitcher_ask_amount']<minthresold]
```

Out[10]:

	episode_number	pitch_number	brand_name	idea	deal	pitcher_ask_amount	ask_equit
14	5	15	Shrawani Engineers	Belly Button Shaper	0	10.00000	20
44	15	45	Cocofit	Coconut based beverage franchise	1	5.00000	5
57	19	58	Ethik	Leather-free Shoes	0	15.00000	5
77	24	78	Nuskha Kitchen	Homemade Foods	0	20.00000	10
85	27	86	Watt Technovations	Ventilated PPE Kits	1	0.00101	10

5 rows × 28 columns

In [11]:
```
df[df['pitcher_ask_amount']>maxthresold]
```

Out[11]:

	episode_number	pitch_number	brand_name	idea	deal	pitcher_ask_amount	ask_ec
30	11	31	Gopal's 56	Fiber Ice Cream	0	30000.0	2
50	17	51	Aas Vidyalaya	EdTech App	1	150.0	
59	19	60	KetoIndia	Customised Keto Diets for various medical issues	0	125.0	
80	25	81	Alpino	Roasted Peanut Products	0	150.0	
96	30	97	Shades of Spring	Flowers	0	300.0	
103	32	104	Experential Etc	Technology layered Advertisement Services	0	200.0	

6 rows × 28 columns

In [12]:
```
df2=df.replace(0.00101,50)
```

In [13]:
```
df2
```

Out[13]:

	episode_number	pitch_number	brand_name	idea	deal	pitcher_ask_amount	ask_equ
0	1	1	BluePine Industries	Frozen Momos	1	50.0	
1	1	2	Booz scooters	Renting e-bike for mobility in private spaces	1	40.0	
2	1	3	Heart up my Sleeves	Detachable Sleeves	1	25.0	
3	2	4	Tagz Foods	Healthy Potato Chips	1	70.0	
4	2	5	Head and Heart	Brain Development Course	0	50.0	
...	...	...	...	...	...	...	
112	34	113	Green Protein	Plant-Based Protein	0	60.0	
113	34	114	On2Cook	Fastest Cooking Device	0	100.0	
114	35	115	Jain Shikanji	Lemonade	1	40.0	
115	35	116	Woloo	Washroom Finder	0	50.0	
116	35	117	Elcare India	Carenting for Elders	0	100.0	

117 rows × 28 columns

In [14]:
```
maxthresold = df2['ask_equity'].quantile(0.95)
minthresold = df2['ask_equity'].quantile(0.05)
```

In [15]:
```
maxthresold
```

Out[15]:
```
10.0
```

In [16]:
```
minthresold
```

Out[16]:
```
1.0
```

In [17]:
```
df2['ask_equity'].min()
```

Out[17]: 0.25

In [18]:
```
df2['ask_equity'].max()
```

Out[18]: 25.0

In [19]:
```
maxthresold = df2['ask_valuation'].quantile(0.95)
minthresold = df2['ask_valuation'].quantile(0.05)
```

In [20]:
```
df2['ask_valuation'].min()
```

Out[20]: 0.01

In [21]:
```
df2['ask_valuation'].max()
```

Out[21]: 120000.0

In [22]:
```
df2.sort_values('ask_valuation',ascending=True)
```

Out[22]:

	episode_number	pitch_number	brand_name	idea	deal	pitcher_ask_amount	ask_equ
85	27	86	Watt Technovations	Ventilated PPE Kits	1	50.0	10
14	5	15	Shrawani Engineers	Belly Button Shaper	0	10.0	20
44	15	45	Cocofit	Coconut based beverage franchise	1	5.0	5
77	24	78	Nuskha Kitchen	Homemade Foods	0	20.0	10
2	1	3	Heart up my Sleeves	Detachable Sleeves	1	25.0	10
...	...	...	...	...	...	...	
113	34	114	On2Cook	Fastest Cooking Device	0	100.0	1
12	5	13	Revamp Moto	E-Bike	1	100.0	1
96	30	97	Shades of Spring	Flowers	0	300.0	1
6	3	7	Qzense Labs	Food Freshness Detector	0	100.0	0
30	11	31	Gopal's 56	Fiber Ice Cream	0	30000.0	25

117 rows × 28 columns

In [23]:
```
df3=df2.replace(0.01,50)
```

Q1 Find the number of episodes

In [24]:
```
N_of_episode = df3['episode_number'].count().sum()
```

In [25]:
```
N_of_episode #number of episodes were 117
```

Out[25]: 117

Q2 Min , max , mean of asked amount , asked equity and asked valuation wise

In [26]:
```
df3['pitcher_ask_amount'].min()
```

Out[26]: 5.0

In [27]:
```
df3['pitcher_ask_amount'].max()
```

Out[27]: 30000.0

In [28]:
```
df3['pitcher_ask_amount'].mean()
```

Out[28]: 320.28205128205127

In [29]:
```
df3['ask_equity'].min()
```

Out[29]: 0.25

In [30]:
```
df3['ask_equity'].max()
```

Out[30]: 25.0

In [31]:
```
df3['ask_equity'].mean()
```

Out[31]: 5.188034188034188

In [32]:
```
df3['ask_valuation'].min()
```

Out[32]: 50.0

In [33]:
```
df3['ask_valuation'].max()
```

Out[33]: 120000.0

In [34]:
```
df3['ask_valuation'].mean()
```

Out[34]: 3852.8897435897434

Q3 Brand name in sharks in which 2,3, or 4 sharks have invested

In [35]:
```
df3.head(3)
```

Out[35]:

	episode_number	pitch_number	brand_name	idea	deal	pitcher_ask_amount	ask_equity
0	1	1	BluePine Industries	Frozen Momos	1	50.0	5.0
1	1	2	Booz scooters	Renting e-bike for mobility in private spaces	1	40.0	15.0
2	1	3	Heart up my Sleeves	Detachable Sleeves	1	25.0	10.0

3 rows × 28 columns

In [36]:
```
df3.columns
```

Out[36]:
```
Index(['episode_number', 'pitch_number', 'brand_name', 'idea', 'deal',
       'pitcher_ask_amount', 'ask_equity', 'ask_valuation', 'deal_amount',
       'deal_equity', 'deal_valuation', 'ashneer_present', 'anupam_present',
       'aman_present', 'namita_present', 'vineeta_present', 'peyush_present',
       'ghazal_present', 'ashneer_deal', 'anupam_deal', 'aman_deal',
       'namita_deal', 'vineeta_deal', 'peyush_deal', 'ghazal_deal',
       'total_sharks_invested', 'amount_per_shark', 'equity_per_shark'],
      dtype='object')
```

In [37]:
```
shark_2_3_4=df3[(df3['total_sharks_invested']>1) & (df3['total_sharks_invested']<5)
```

In [38]:
```
shark_2_3_4
```

Out[38]:

	episode_number	pitch_number	brand_name	idea	deal	pitcher_ask_amount	ask_ec
0	1	1	BluePine Industries	Frozen Momos	1	50.0	
1	1	2	Booz scooters	Renting e-bike for mobility in private spaces	1	40.0	
2	1	3	Heart up my Sleeves	Detachable Sleeves	1	25.0	
9	4	10	Cosiq	Intelligent Skincare	1	50.0	
11	4	12	Bummer	Underwear	1	75.0	
12	5	13	Revamp Moto	E-Bike	1	100.0	
18	7	19	Raising Superstars	Child Development App	0	100.0	
21	8	22	Beyond Snack	Kerala Banana Chips	1	50.0	
22	8	23	Vivalyf Innovations-Easy Life	Prickless Diabetes Testing Machine	1	56.0	
24	9	25	Altor	Smart Helmets	1	50.0	
25	9	26	Ariro	Wooden Toys	1	50.0	
27	10	28	Nuutjob	Male Intimate Hygiene	1	25.0	
28	10	29	Meatyour	Eggs	1	30.0	
29	10	30	EventBeep	Student Community App	1	30.0	
32	11	33	Farda	Customised Streetwear	1	30.0	
35	12	36	LOKA	Metaverse App	1	40.0	
36	13	37	Annie	Braille Literary Device	1	30.0	
37	13	38	Caragreen	Eco-Friendly boxes	1	50.0	

	episode_number	pitch_number	brand_name	idea	deal	pitcher_ask_amount	ask_ec
38	13	39	The Yarn Bazaar	Yarn-Trading App	1	50.0	
39	14	40	The Renal Project	Home Dialysis Treatment	1	100.0	
44	15	45	Cocofit	Coconut based beverage franchise	1	5.0	
45	16	46	Bamboo India	Bamboo Products	1	80.0	
47	16	48	Beyond Water	Liquid Water Enhancer	1	75.0	
48	16	49	Let's Try	Healthy Snacks	1	45.0	
50	17	51	Aas Vidyalaya	EdTech App	1	150.0	
58	19	59	WeSTOCK	Livestock health monitoring AI	1	50.0	
64	21	65	Get a Whey	Sugar-Free Icecream	1	100.0	
66	21	67	The Quirky Nari	Customised Apparels	1	35.0	
67	22	68	Hair Originals	Natural Hair Extensions	1	60.0	
75	24	76	The Sass Bar	Gifts	1	40.0	
85	27	86	Watt Technovations	Ventilated PPE Kits	1	50.0	
88	28	89	Humpy A2	Organic Milk Products	1	75.0	
90	28	91	Gold Safe Solutions Ind.	Anti-Suicidal Fan Rod	1	50.0	
91	29	92	Wakao Foods	Jackfruit Products	1	75.0	
95	30	96	Kabaddi Adda	All-Kabaddi App	1	80.0	
108	33	109	Tweek Labs	Sportswear	1	40.0	
109	33	110	Proxgy	VR	1	35.0	
110	34	111	Nomad Food Project	Bacon Jams	1	40.0	
114	35	115	Jain Shikanji	Lemonade	1	40.0	

39 rows × 28 columns

In [39]:
```
shark_2_3_4['brand_name'].unique
```

Out[39]:
```
<bound method Series.unique of 0                  BluePine Industries
1                         Booz scooters
2                  Heart up my Sleeves
9                                Cosiq
11                              Bummer
12                         Revamp Moto
18                  Raising Superstars
21                        Beyond Snack
22     Vivalyf Innovations- Easy Life
24                               Altor
25                               Ariro
27                             Nuutjob
28                            Meatyour
29                           EventBeep
32                               Farda
35                                LOKA
36                               Annie
37                            Caragreen
38                     The Yarn Bazaar
39                   The Renal Project
44                             Cocofit
45                        Bamboo India
47                        Beyond Water
48                           Let's Try
50                       Aas Vidyalaya
58                              WeSTOCK
64                          Get a Whey
66                     The Quirky Nari
67                      Hair Originals
75                        The Sass Bar
85                  Watt Technovations
88                              Humpy A2
90           Gold Safe Solutions Ind.
91                           Wakao Foods
95                          Kabaddi Adda
108                           Tweek Labs
109                               Proxgy
110                 Nomad Food Project
114                       Jain Shikanji
Name: brand_name, dtype: object>
```

Q4 Episode wise Min, Max of sharks invested

In [40]:
```
df3.head(1)
```

Out[40]:

	episode_number	pitch_number	brand_name	idea	deal	pitcher_ask_amount	ask_equity	ask
0	1	1	BluePine Industries	Frozen Momos	1	50.0	5.0	

1 rows × 28 columns

In [41]:
```
df3.columns
```

Out[41]:
```
Index(['episode_number', 'pitch_number', 'brand_name', 'idea', 'deal',
       'pitcher_ask_amount', 'ask_equity', 'ask_valuation', 'deal_amount',
       'deal_equity', 'deal_valuation', 'ashneer_present', 'anupam_present',
       'aman_present', 'namita_present', 'vineeta_present', 'peyush_present',
       'ghazal_present', 'ashneer_deal', 'anupam_deal', 'aman_deal',
       'namita_deal', 'vineeta_deal', 'peyush_deal', 'ghazal_deal',
       'total_sharks_invested', 'amount_per_shark', 'equity_per_shark'],
      dtype='object')
```

In [42]:
```
episode_group=df3.groupby('episode_number')
```

In [43]:
```
episode_group.first()
```

Out[43]:

episode_number	pitch_number	brand_name	idea	deal	pitcher_ask_amount	ask_equity	a
1	1	BluePine Industries	Frozen Momos	1	50.0	5.00	
2	4	Tagz Foods	Healthy Potato Chips	1	70.0	1.00	
3	7	Qzense Labs	Food Freshness Detector	0	100.0	0.25	
4	10	Cosiq	Intelligent Skincare	1	50.0	7.50	
5	13	Revamp Moto	E-Bike	1	100.0	1.00	
6	16	Skippi Pops	Ice-Pops	1	45.0	5.00	
7	19	Raising Superstars	Child Development App	0	100.0	2.00	
8	22	Beyond Snack	Kerala Banana Chips	1	50.0	2.50	
9	25	Altor	Smart Helmets	1	50.0	5.00	
10	28	Nuutjob	Male Intimate Hygiene	1	25.0	5.00	
11	31	Gopal's 56	Fiber Ice Cream	0	30000.0	25.00	
12	34	Auli Lifestyle	Ayurvedic Products	1	75.0	4.00	
13	37	Annie	Braille Literary Device	1	30.0	5.00	
14	40	The Renal Project	Home Dialysis Treatment	1	100.0	3.00	
15	43	Hammer Lifestyle	Smart Audio Products	1	30.0	3.00	
16	46	Bamboo India	Bamboo Products	1	80.0	4.00	
17	50	Find Your Kicks India	Sneaker Resale	1	50.0	10.00	
18	54	Mommy's Kitchen	Thin Crust Pizza	0	90.0	3.00	

episode_number	pitch_number	brand_name	idea	deal	pitcher_ask_amount	ask_equity	a
19	58	Ethik	Leather-free Shoes	0	15.0	5.00	
20	62	The State Plate	Delicacies	1	65.0	2.00	
21	65	Get a Whey	Sugar-Free Icecream	1	100.0	8.00	
22	68	Hair Originals	Natural Hair Extensions	1	60.0	2.00	
23	72	Namhya Foods	Ayurvedic Enriched Food	1	100.0	5.00	
24	76	The Sass Bar	Gifts	1	40.0	8.00	
25	79	PawsIndia	Dog Products	1	50.0	4.00	
26	82	Isak Fragrances	Perfumes	1	50.0	8.00	
27	85	Theka Coffee	Coffee Products	0	50.0	10.00	
28	89	Humpy A2	Organic Milk Products	1	75.0	4.00	
29	92	Wakao Foods	Jackfruit Products	1	75.0	5.00	
30	95	Sippline Drinking Shields	Portable Glass Attachment	0	75.0	15.00	
31	99	Scrapshala	Handmade Reusable Scrap Materials	0	50.0	10.00	
32	103	Thea and Sid	Proposal Solutions	0	80.0	7.00	
33	107	Colour Me Mad	Insoles	1	40.0	10.00	
34	111	Nomad Food Project	Bacon Jams	1	40.0	10.00	
35	115	Jain Shikanji	Lemonade	1	40.0	8.00	

35 rows × 27 columns

Q5 No. of sharks the brand have invested

In [44]:
```
df3.columns
```

Out[44]:
```
Index(['episode_number', 'pitch_number', 'brand_name', 'idea', 'deal',
       'pitcher_ask_amount', 'ask_equity', 'ask_valuation', 'deal_amount',
       'deal_equity', 'deal_valuation', 'ashneer_present', 'anupam_present',
       'aman_present', 'namita_present', 'vineeta_present', 'peyush_present',
       'ghazal_present', 'ashneer_deal', 'anupam_deal', 'aman_deal',
       'namita_deal', 'vineeta_deal', 'peyush_deal', 'ghazal_deal',
       'total_sharks_invested', 'amount_per_shark', 'equity_per_shark'],
      dtype='object')
```

In [45]:
```
df3.loc[:,['brand_name','total_sharks_invested']]
```

Out[45]:

	brand_name	total_sharks_invested
0	BluePine Industries	3
1	Booz scooters	2
2	Heart up my Sleeves	2
3	Tagz Foods	1
4	Head and Heart	0
...	...	...
112	Green Protein	0
113	On2Cook	0
114	Jain Shikanji	4
115	Woloo	0
116	Elcare India	0

117 rows × 2 columns

Q6 Brand name who asked for 1 crore and got the deal

In [46]:
```
df4=df3[(df3['pitcher_ask_amount']>99)&(df3['ask_equity']>0)]
```

In [47]:
```
df4
```

Out[47]:

	episode_number	pitch_number	brand_name	idea	deal	pitcher_ask_amount	ask_ec
6	3	7	Qzense Labs	Food Freshness Detector	0	100.0	
12	5	13	Revamp Moto	E-Bike	1	100.0	
17	6	18	HecoIII	Pollution Resistant Fabric	0	100.0	
18	7	19	Raising Superstars	Child Development App	0	100.0	
26	9	27	Kabira Handmade	Healthy Oils	0	100.0	
30	11	31	Gopal's 56	Fiber Ice Cream	0	30000.0	2
39	14	40	The Renal Project	Home Dialysis Treatment	1	100.0	
40	14	41	Morikko Pure Foods	Healthy Food Snacks	0	100.0	
50	17	51	Aas Vidyalaya	EdTech App	1	150.0	
55	18	56	Otua	Electric Auto Vehicle	1	100.0	
59	19	60	KetoIndia	Customised Keto Diets for various medical issues	0	125.0	
60	19	61	Magic lock	LPG Cylinder lock	0	120.0	
64	21	65	Get a Whey	Sugar-Free Icecream	1	100.0	
71	23	72	Namhya Foods	Ayurvedic Enriched Food	1	100.0	
72	23	73	Urban Monkey	Streetwear	0	100.0	
79	25	80	Sunfox Technologies	Portable ECG Device	1	100.0	
80	25	81	Alpino	Roasted Peanut Products	0	150.0	
87	27	88	Insurance Samadhan	Insurance Solutions	1	100.0	
93	29	94	PlayBox TV	Streaming	0	100.0	

	episode_number	pitch_number	brand_name	idea	deal	pitcher_ask_amount	ask_ec
				Platform			
96	30	97	Shades of Spring	Flowers	0	300.0	
103	32	104	Experential Etc	Technology layered Advertisement Services	0	200.0	
113	34	114	On2Cook	Fastest Cooking Device	0	100.0	
116	35	117	Elcare India	Carenting for Elders	0	100.0	

23 rows × 28 columns

In [48]:
```
df4['brand_name']
```

Out[48]:
```
6              Qzense Labs
12             Revamp Moto
17                 Hecolll
18      Raising Superstars
26         Kabira Handmade
30              Gopal's 56
39       The Renal Project
40      Morikko Pure Foods
50           Aas Vidyalaya
55                    Otua
59               KetoIndia
60              Magic lock
64              Get a Whey
71            Namhya Foods
72            Urban Monkey
79     Sunfox Technologies
80                  Alpino
87      Insurance Samadhan
93              PlayBox TV
96        Shades of Spring
103        Experential Etc
113               On2Cook
116           Elcare India
Name: brand_name, dtype: object
```

Q7 Find the number of brands participated in this show and what there names

In [49]:
```
df3['brand_name']
```

Out[49]:
```
0      BluePine Industries
1            Booz scooters
2      Heart up my Sleeves
3                Tagz Foods
4            Head and Heart
               ...
112          Green Protein
113                On2Cook
114          Jain Shikanji
115                  Woloo
116           Elcare India
Name: brand_name, Length: 117, dtype: object
```

In [50]:
```
unique_brand_name=df3['brand_name'].count()
```

In [51]:
```
unique_brand_name
```

Out[51]:
```
117
```

Q8 Find appearance of each sharks

In [52]:
```
df3.columns
```

Out[52]:
```
Index(['episode_number', 'pitch_number', 'brand_name', 'idea', 'deal',
       'pitcher_ask_amount', 'ask_equity', 'ask_valuation', 'deal_amount',
       'deal_equity', 'deal_valuation', 'ashneer_present', 'anupam_present',
       'aman_present', 'namita_present', 'vineeta_present', 'peyush_present',
       'ghazal_present', 'ashneer_deal', 'anupam_deal', 'aman_deal',
       'namita_deal', 'vineeta_deal', 'peyush_deal', 'ghazal_deal',
       'total_sharks_invested', 'amount_per_shark', 'equity_per_shark'],
      dtype='object')
```

In [53]:
```
df5=pd.DataFrame(df3,columns=['ashneer_present', 'anupam_present',
       'aman_present', 'namita_present', 'vineeta_present', 'peyush_present',
       'ghazal_present'])
```

In [54]:
```
df6=(df5>0).sum(axis=0)
```

In [55]:
```
df6
```

Out[55]:
```
ashneer_present     98
anupam_present     117
aman_present        98
namita_present     106
vineeta_present     66
peyush_present      88
ghazal_present      26
dtype: int64
```

Q9 How many enterpreneur were present

In [56]:
```
import numpy as np
df7=df3['brand_name'].unique()
```

In [57]:
```
df8=pd.DataFrame(df7)
```

In [58]:
```
df8.count()
```

Out[58]:
```
0    117
dtype: int64
```

Q10 How many times each sharks invested the deal

In [59]:
```
df3.columns
```

Out[59]:
```
Index(['episode_number', 'pitch_number', 'brand_name', 'idea', 'deal',
       'pitcher_ask_amount', 'ask_equity', 'ask_valuation', 'deal_amount',
       'deal_equity', 'deal_valuation', 'ashneer_present', 'anupam_present',
       'aman_present', 'namita_present', 'vineeta_present', 'peyush_present',
       'ghazal_present', 'ashneer_deal', 'anupam_deal', 'aman_deal',
       'namita_deal', 'vineeta_deal', 'peyush_deal', 'ghazal_deal',
       'total_sharks_invested', 'amount_per_shark', 'equity_per_shark'],
      dtype='object')
```

In [60]:
```
df9=pd.DataFrame(df3,columns=['ashneer_deal', 'anupam_deal', 'aman_deal',
       'namita_deal', 'vineeta_deal', 'peyush_deal', 'ghazal_deal'])
```

In [61]:
```
df9.sum(axis=0)
```

Out[61]:
```
ashneer_deal    21
anupam_deal     24
aman_deal       28
namita_deal     22
vineeta_deal    15
peyush_deal     27
ghazal_deal      7
dtype: int64
```

Q11 Find the equity percentage each sharks gets

In [62]:
```
df11=pd.DataFrame(df3,columns=['deal_equity','ashneer_deal', 'anupam_deal', 'aman_d
       'namita_deal', 'vineeta_deal', 'peyush_deal', 'ghazal_deal','total_sharks_in
```

Total Equity

In [63]:
```
total_equity=df11['deal_equity'].sum()
total_equity
```

Out[63]: 1048.73

Ashneer Equity Percentage

In [64]:
```
df12=pd.DataFrame(df3,columns=['deal_equity','ashneer_deal', 'total_sharks_invested
```

In [65]:
```
df12= df12[df12['ashneer_deal'] != 0]
```

In [66]:
```
ashneer_equity=df12['deal_equity']/df12['total_sharks_invested']
```

In [67]:
```
ashneer_equity=ashneer_equity.sum()
ashneer_equity
```

Out[67]: 93.25

In [68]:
```
ashneer_equity_percentage=ashneer_equity/total_equity*100
ashneer_equity_percentage
```

Out[68]: 8.891707112412156

8.89% equity shares were purchased by ashneer

In [ ]:
```

```

Anupam Equity Percentage

In [69]:
```
df13=pd.DataFrame(df3,columns=['deal_equity','anupam_deal', 'total_sharks_invested'
```

In [70]:
```
df13= df13[df13['anupam_deal'] != 0]
```

In [71]:
```
anupam_equity=df13['deal_equity']/df13['total_sharks_invested']
```

In [72]:
```
anupam_equity=anupam_equity.sum()
anupam_equity
```

Out[72]: 166.35

In [73]:
```
anupam_equity_percentage=anupam_equity/total_equity*100
anupam_equity_percentage
```

Out[73]: 15.862042661123454

15.86% shares were purchased by Anupam

In [ ]:

Aman Equity Percentage

In [74]:
```
df14=pd.DataFrame(df3,columns=['deal_equity','aman_deal', 'total_sharks_invested'])
df14= df14[df14['aman_deal'] != 0]
aman_equity=df14['deal_equity']/df14['total_sharks_invested']
aman_equity=aman_equity.sum()
aman_equity_percentage=aman_equity/total_equity*100
aman_equity_percentage
```

Out[74]: 15.281658132534906

15.28% shares were puchased by aman

In [75]:
```
df15=pd.DataFrame(df3,columns=['deal_equity','namita_deal', 'total_sharks_invested'
df15= df15[df15['namita_deal'] != 0]
namita_equity=df15['deal_equity']/df15['total_sharks_invested']
namita_equity=namita_equity.sum()
namita_equity
namita_equity_percentage=namita_equity/total_equity*100
namita_equity_percentage
```

Out[75]: 12.852052800371242

12.85 Percent Shares purchased by Namita

In [ ]:

In [76]:
```
df16=pd.DataFrame(df3,columns=['deal_equity','vineeta_deal', 'total_sharks_invested
df16= df16[df16['vineeta_deal'] != 0]
vineeta_equity=df16['deal_equity']/df16['total_sharks_invested']
vineeta_equity=vineeta_equity.sum()
vineeta_equity
vineeta_equity_percentage=vineeta_equity/total_equity*100
vineeta_equity_percentage
```

Out[76]: 12.542154161064653

12.54 % shares were purchased by namita

In [77]:
```
df17=pd.DataFrame(df3,columns=['deal_equity','peyush_deal', 'total_sharks_invested'
df17= df17[df17['peyush_deal'] != 0]
peyush_equity=df17['deal_equity']/df17['total_sharks_invested']
peyush_equity=peyush_equity.sum()
peyush_equity
peyush_equity_percentage=peyush_equity/total_equity*100
peyush_equity_percentage
```

Out[77]:
```
30.117380069226584
```

30.11 % shares were perchased by Peyush

In [ ]:
```
```

In [78]:
```
df18=pd.DataFrame(df3,columns=['deal_equity','ghazal_deal', 'total_sharks_invested'
df18= df18[df18['ghazal_deal'] != 0]
ghazal_equity=df18['deal_equity']/df18['total_sharks_invested']
ghazal_equity=ghazal_equity.sum()
ghazal_equity
ghazal_equity_percentage=ghazal_equity/total_equity*100
ghazal_equity_percentage
```

Out[78]:
```
4.453005063267
```

4.45 % shares were purchased by Peyush

In [79]:
```
Total_Equity_percentage=ashneer_equity_percentage+anupam_equity_percentage+aman_equ
```

In [80]:
```
Total_Equity_percentage
```

Out[80]:
```
100.0
```

Total Percentage of all sharks are 100% Hence Values are Correct

In [81]:
```
print('ashneer_equity_percentage=',ashneer_equity_percentage)
print('anupam_equity_percentage=',anupam_equity_percentage)
print('aman_equity_percentage=',aman_equity_percentage)
print('namita_equity_percentage=',namita_equity_percentage)
print('vineeta_equity_percentage=',vineeta_equity_percentage)
print('peyush_equity_percentage=',peyush_equity_percentage)
print('ghazal_equity_percentage=',ghazal_equity_percentage)
print('Total=',Total_Equity_percentage)
```

```
ashneer_equity_percentage= 8.891707112412156
anupam_equity_percentage= 15.862042661123454
aman_equity_percentage= 15.281658132534906
namita_equity_percentage= 12.852052800371242
vineeta_equity_percentage= 12.542154161064653
peyush_equity_percentage= 30.117380069226584
ghazal_equity_percentage= 4.453005063267
Total= 100.0
```

Q12 Find the total number of amount invested in this show

In [82]:
```
df3
```

Out[82]:

	episode_number	pitch_number	brand_name	idea	deal	pitcher_ask_amount	ask_equ
0	1	1	BluePine Industries	Frozen Momos	1	50.0	
1	1	2	Booz scooters	Renting e-bike for mobility in private spaces	1	40.0	
2	1	3	Heart up my Sleeves	Detachable Sleeves	1	25.0	
3	2	4	Tagz Foods	Healthy Potato Chips	1	70.0	
4	2	5	Head and Heart	Brain Development Course	0	50.0	
...	...	...	...	...	...	...	
112	34	113	Green Protein	Plant-Based Protein	0	60.0	
113	34	114	On2Cook	Fastest Cooking Device	0	100.0	
114	35	115	Jain Shikanji	Lemonade	1	40.0	
115	35	116	Woloo	Washroom Finder	0	50.0	
116	35	117	Elcare India	Carenting for Elders	0	100.0	

117 rows × 28 columns

In [83]:
```
Total_Amount_Invested =df3['deal_amount'].sum()
```

In [84]:
```
print('Total_Amount_Invested=',Total_Amount_Invested,'Lc')
```

```
Total_Amount_Invested= 3792.00005 Lc
```

In [ ]: