

✓ MODERATE QUESTIONS : (ATTEMPT ANY 8) (10-18 Questions)

```
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
import seaborn as sns
```

```
df1 = pd.read_excel("/content/Data analyst Data.xlsx")
df1.tail()
```



	First Name	Email ID	Quantity	Events	Attendee Status	Colleg Nam
4889	Patel Niraj	patelniraj@xyz.com	1	The SDLC & their transformations	Attending	thaku institute c managemer studies career.
4890	VIDIT	vidit@xyz.com	1	Data Visualization using Power BI	Attending	governmer polytechni gandhinaga
4891	Suryaprakash	suryaprakash@xyz.com	1	Data Visualization using Power BI	Attending	vishwakarm institute c technology pun
4892	Saif ali	saifali@xyz.com	1	Data Visualization using Power BI	Attending	mit academ c engineerin ,alanc
4893	Lankesh	lankesh@xyz.com	1	Data Visualization using Power BI	Attending	a. c. pat college c engineerin

```
df1.columns
```

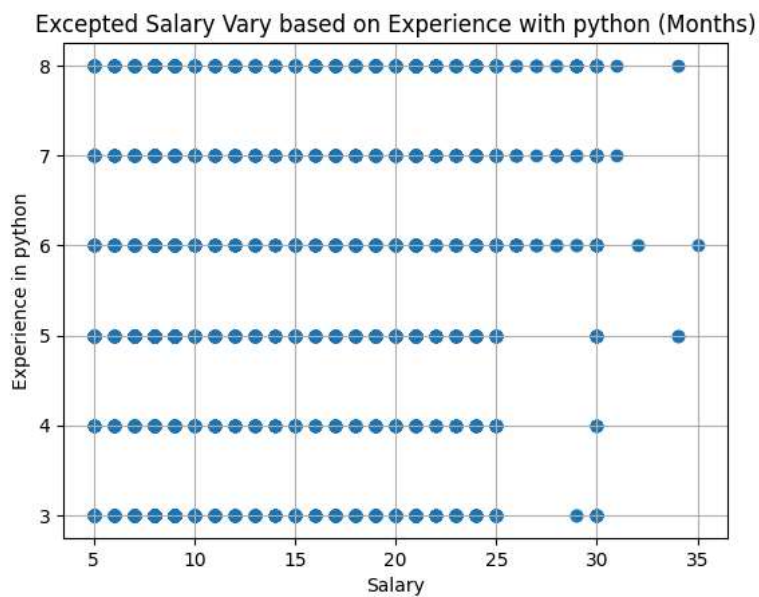
```
Index(['First Name', 'Email ID', 'Quantity', 'Events', 'Attendee Status',  
      'College Name', 'How did you come to know about this event?',  
      'Specify in "Others" (how did you come to know about this event)',  
      'Designation', 'Year of Graduation', 'City', 'CGPA',  
      'Experience with python (Months)', 'Family Income',  
      'Expected salary (Lac)', 'Leadership- skills'],  
      dtype='object')
```

✓ 11. How does the excepted salary vary based on factors like CGPA , Family Income , Experience in Python.?

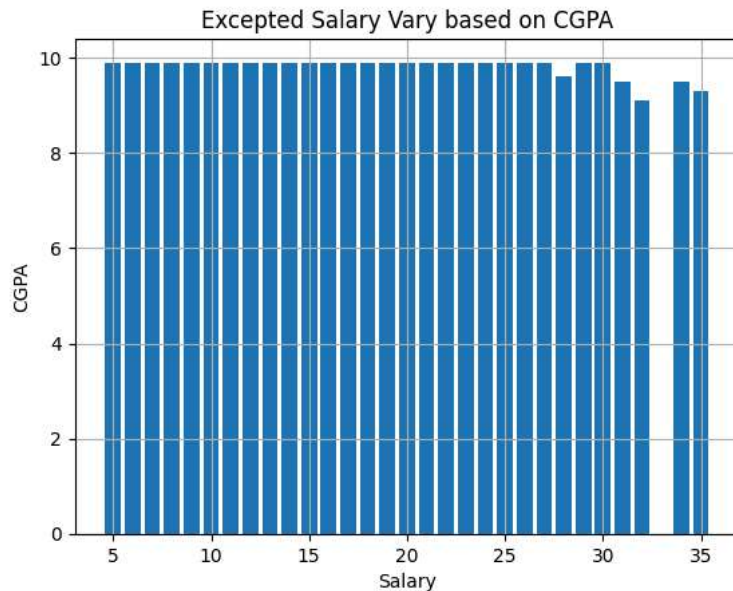
```
plt.title("Excepted Salary Vary based on Family Income")
plt.xlabel("Salary")
plt.ylabel("Family Income")
plt.scatter(df1["Expected salary (Lac)"],df1["Family Income"])
plt.grid(True)
plt.show()
```



```
plt.title("Expected Salary Vary based on Experience with python (Months)")
plt.xlabel("Salary")
plt.ylabel("Experience in python")
plt.scatter(df1["Expected salary (Lac)"],df1["Experience with python (Months)"])
plt.grid(True)
plt.show()
```



```
plt.title("Expected Salary Vary based on CGPA")
plt.xlabel("Salary")
plt.ylabel("CGPA")
plt.bar(df1["Expected salary (Lac)"],df1["CGPA"])
plt.grid(True)
plt.show()
```



Observations :

1. Those with a family income ranging between 5-7 lakhs can expect a highest salary of 35 lakhs.
2. Most of those whose experience in Python is more than 5 out of 10 can expect a salary of more than 25 lakhs..
3. The salary does not depend on CGPA, as the salary does not vary much regardless of whether the CGPA is high or low..

** ----- **

✓ 12. Which event tend to attract more students from specific fields of study?

```
df1["Events"].value_counts()
```



```
Events
Product Design & Full Stack      842
Internship Program(IP) Success Conclave  797
Art of Resume Building          478
Data Visualization using Power BI  455
Talk on Skill and Employability Enhancement  379
Skill and Employability Enhancement  318
IS DATA SCIENCE FOR YOU?       306
Hello ML and DL                 262
KYC - Know Your CCPC            205
IAC - Q&A                       146
The SDLC & their transformations  142
Artificial Intelligence          125
The Agile Ways of Working        121
RPA: A Boon or A Bane           114
Product Marketing                112
Transformation with DevOps: The Easy Way  92
Name: count, dtype: int64
```

Product Design & Full Stack Event Attract more Students.

✓ 13. Do Students in Leadership positions during their college years tend to have higher CGPA'S or better expected salary.?

```
df1["Leadership- skills"].unique()
```

```
array(['yes', 'no', 'no '], dtype=object)
```

```
mean=df1["Expected salary (Lac)"].mean()
```

```
print(mean)
```

```
leaderships = df1[df1["Leadership- skills"]=="yes"]
```

```
skills = leaderships[(leaderships["CGPA"]==9.9) | (leaderships["Expected salary (Lac)"]>mean)]
```

```
print(skills["Expected salary (Lac)"].value_counts() , skills["CGPA"].value_counts())
```

```
24      39
23      38
16      30
30      21
14      20
22      17
29       7
26       5
9        4
28       4
27       3
8        3
5        2
7        2
13       1
32       1
10       1
6        1
11       1
Name: count, dtype: int64 CGPA
9.1      55
9.5      47
9.9      41
9.2      41
7.3      41
7.9      35
7.6      35
9.3      31
8.5      30
6.7      29
8.7      28
8.3      27
7.2      27
6.5      26
7.1      24
9.6      23
7.8      18
6.6      18
6.9      18
9.4      17
9.7      17
7.7      17
7.5      17
8.1      14
7.4      14
8.9      13
8.0       9
8.4       9
6.8       9
8.6       8
9.8       7
8.8       6
9.0       6
6.4       5
8.2       3
6.3       2
6.2       2
Name: count, dtype: int64
```

Observation : Students who demonstrate leadership skills during their college years , most of them have a higher expected salary (greater than 13.93), even if they do not have a high CGPA (9.9).

✓ 14. How Many Students are graduating by the end of 2024.?

```
df1[df1["Year of Graduation"]==2024].shape[0]
```

```
1511
```

✓ 15. Which Promotion channel brings in more student participations for the event.?

```
df1["How did you come to know about this event?"].value_counts()
```

```

How did you come to know about this event?
Whatsapp                                1067
Email                                   438
SPOC/ College Professor                 326
Others                                  153
Cloud Counselage Website               129
...
Youtube | Instagram | Whatsapp | Email 1
LinkedIn | Email | Telegram             1
Youtube | Email | Others                 1
Youtube | Facebook | Instagram | LinkedIn | Whatsapp | Email | Telegram | Friend/ Classmate 1
Youtube | Whatsapp | Cloud Counselage Website 1
Name: count, Length: 99, dtype: int64

```

Observation : If we observe, the most effective promotion channel is "WHATSAPP", which brings the most student participation for the event

✓ 16. Find the total number of students who attended the events related to datascience (FROM ALL DATA SCIENCE RELATED COURSES)

```
df1["Events"].unique()
```

```

array(['Art of Resume Building', 'Data Visualization using Power BI',
      'Artificial Intelligence', 'Hello ML and DL', 'Product Marketing',
      'IAC - Q&A', 'Internship Program(IP) Success Conclave',
      'IS DATA SCIENCE FOR YOU?', 'KYC - Know Your CCPC',
      'Product Design & Full Stack', 'RPA: A Boon or A Bane',
      'Skill and Employability Enhancement',
      'Talk on Skill and Employability Enhancement',
      'The Agile Ways of Working', 'The SDLC & their transformations',
      'Transformation with DevOps: The Easy Way'], dtype=object)

```

```

events = ['IS DATA SCIENCE FOR YOU?', 'Hello ML and DL', 'Artificial Intelligence', 'Data Visualization using Power BI']
df1[df1["Events"].isin(events)].shape[0]

```

```
1148
```

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✓ 17. Those who have high CGPA and More Experience in language those who had high expectations for Salary.?(Avg)

```
df1[(df1["CGPA"]== 9.9) & (df1["Experience with python (Months)"]==8)]["Expected salary (Lac)"].mean()
```

```
20.3
```

✓ 18. How Many students know about the event from their colleges? Which of these Top 5 colleges.?

```

column_name = 'Specify in \"Others\" (how did you come to know about this event)'
df1[column_name].unique()

```

```

array([nan, 'College', 'Friends', 'Interested', 'Attend', 'Telegram',
      'Team entity', 'You tube', 'Twitter ', 'Yuva Sena/Shiv Sena',
      'Institute', 'From Academy'], dtype=object)

```

```
df1[df1[column_name]=='College'].head()
```



	First Name	Email ID	Quantity	Events	Attendee Status	College Name	How did you come to know about this event?	Specify in "Others" (how did you come to know about this event)	Designation	Year of Graduation	City
1	Dhanshree	dhanshree@xyz.com	1	Art of Resume Building	Attending	AP SHAH INSTITUTE OF TECHNOLOGY	Others	College	Students	2024	Amrava
8	Mayuresh	mayuresh@xyz.com	1	Art of Resume Building	Attending	GOVERNMENT POLYTECHNIC GANDHINAGAR	Others	College	Students	2024	Tezpu
18	Shubham	shubham@xyz.com	1	Art of Resume Building	Attending	Wilson college	Others	College	Students	2024	Munge
20	Shivani	shivani@xyz.com	1	Art of Resume Building	Attending	DKTE Society's Textile And Engineering Institu...	Others	College	Students	2023	Muzaffarpu
27	Dhanshree	dhanshree@xyz.com	1	Art of Resume Building	Attending	Pillai College of Engineering New Panvel	Whatsapp Others	College	Students	2025	Di

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