In [17]:
```
import pandas as pd
structured_data=pd.DataFrame({
    'ID':[2,4,6],
    'Name':['Jane','Mary','Lucy'],
    'Age':[30,45,24],
})
print("Structured Data:\n",structured_data)
```

```
Structured Data:
    ID  Name  Age
0   2  Jane   30
1   4  Mary   45
2   6  Lucy   24
```

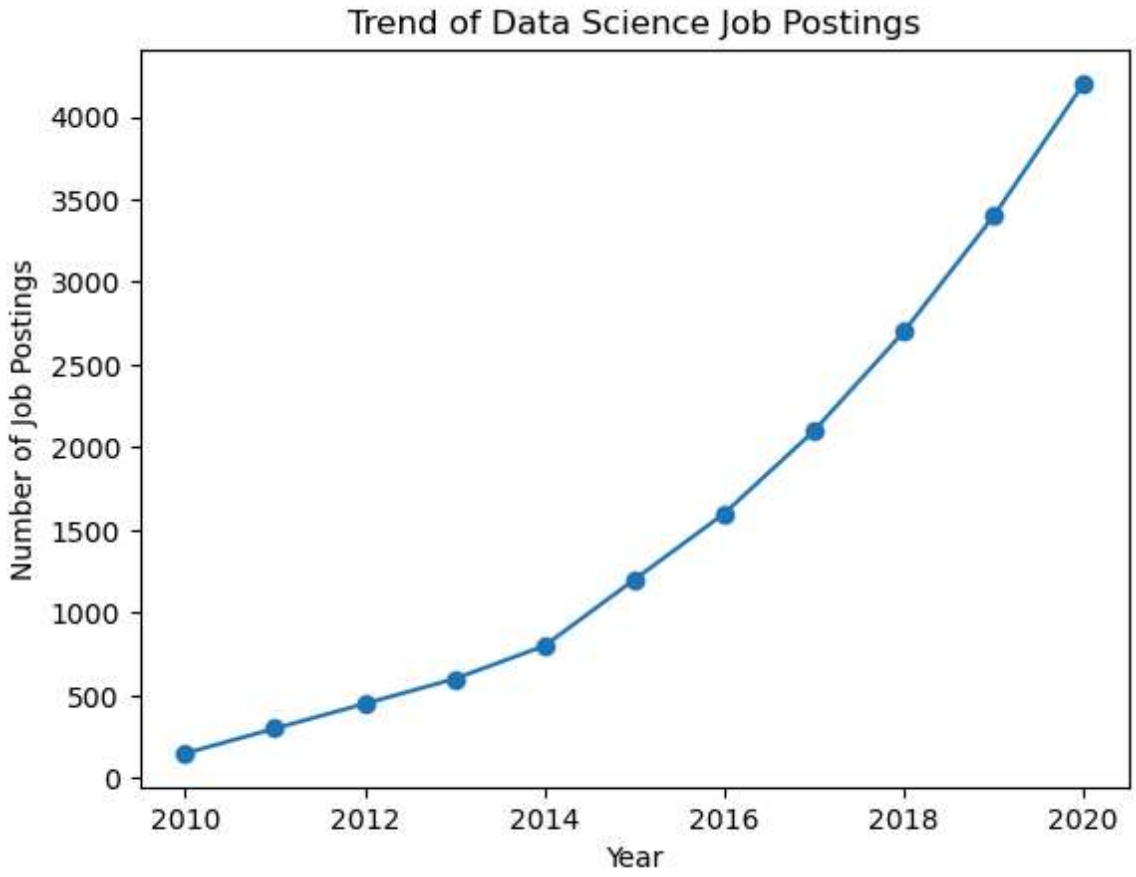
In [28]:
```
import pandas as pd
unstructured_data="abc 34 2045","pqr 45 2025","jpr 67 2065"
print("Unstructured Data:\n",unstructured_data)
```

```
Unstructured Data:
 ('abc 34 2045', 'pqr 45 2025', 'jpr 67 2065')
```

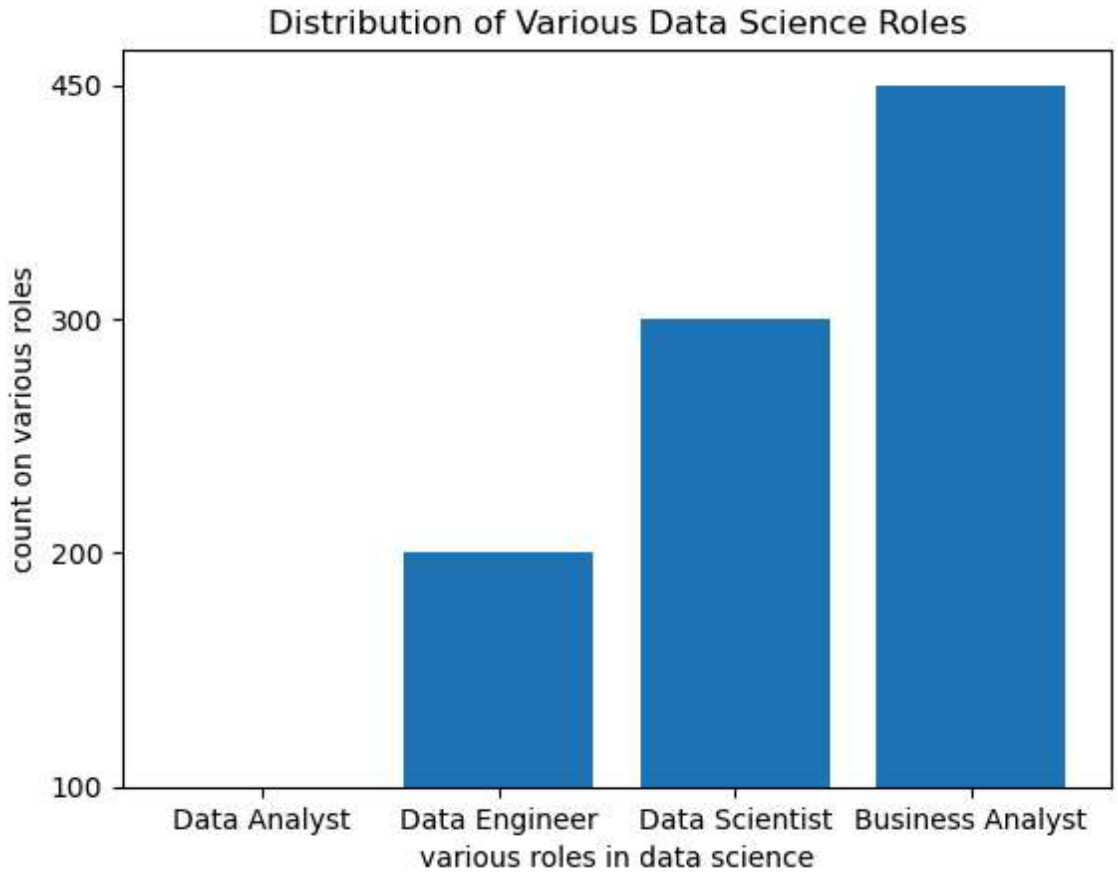
In [27]:
```
import pandas as pd
semistructured_data={'ID':[3,5,7],'Name':['Jane','Mary','Lucy'], 'Age':[23,45,46]}
print("Semistructured Data:\n",semistructured_data)
```

```
Semistructured Data:
 {'ID': [3, 5, 7], 'Name': ['Jane', 'Mary', 'Lucy'], 'Age': [23, 45, 46]}
```

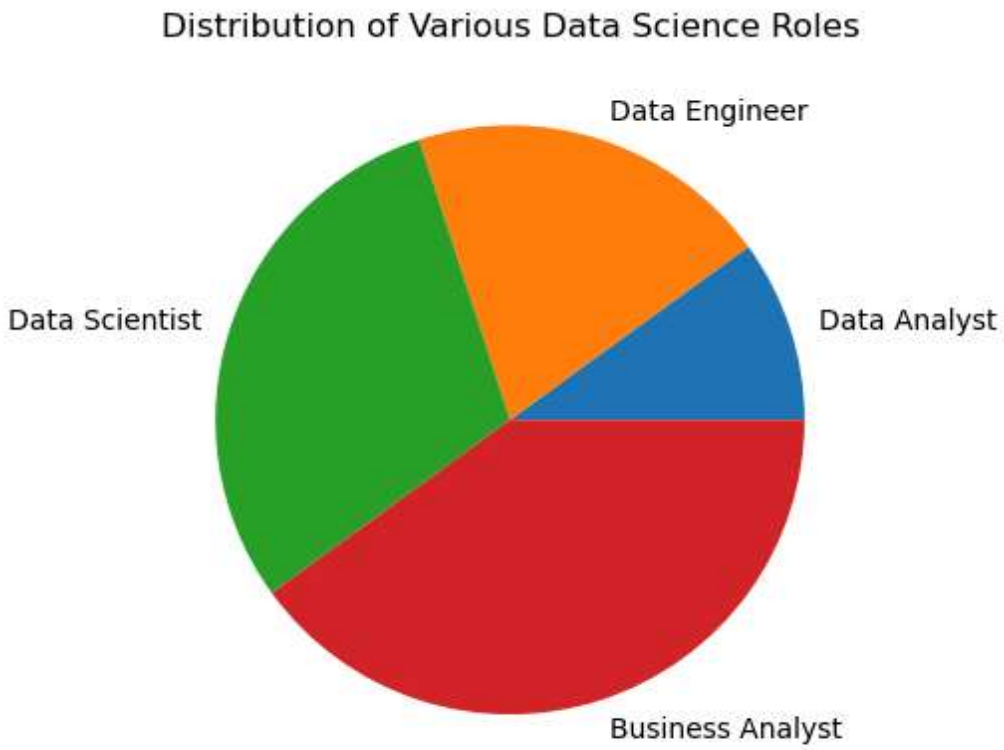
In [36]:
```
import pandas as pd
import matplotlib.pyplot as plt
data={'Year':list(range(2010,2021)),
     'Job Postings':[150,300,450,600,800,1200,1600,2100,2700,3400,4200]}
df=pd.DataFrame(data)
plt.plot(df['Year'],df['Job Postings'],marker='o')
plt.title('Trend of Data Science Job Postings')
plt.xlabel('Year')
plt.ylabel('Number of Job Postings')
plt.show()
```



In [37]:
```
import pandas as pd
import matplotlib.pyplot as plt
role=['Data Analyst','Data Engineer','Data Scientist','Business Analyst']
count=['100','200','300','450']
plt.bar(role,count)
plt.title('Distribution of Various Data Science Roles')
plt.xlabel('various roles in data science')
plt.ylabel('count on various roles')
plt.show()
```



In [38]:
```
import pandas as pd
import matplotlib.pyplot as plt
role=['Data Analyst','Data Engineer','Data Scientist','Business Analyst']
count=['100','200','300','400']
#c=['green','blue','red']
plt.pie(count,labels=role)
#plt.bar(role,count)
plt.title('Distribution of Various Data Science Roles')
plt.show()
```



In [ ]: