In [1]:
```
import matplotlib.pyplot as plt
import pandas as pd
```

In [2]:
```
data = pd.read_csv(r"C:\Users\nikhi\OneDrive\Desktop\Final Project\DEEP LEARNING WITH HPSC\core_data.txt")
```

In [3]:
```
data.sort_values(by = 'Number of Cores', inplace = True,ignore_index= True)
```

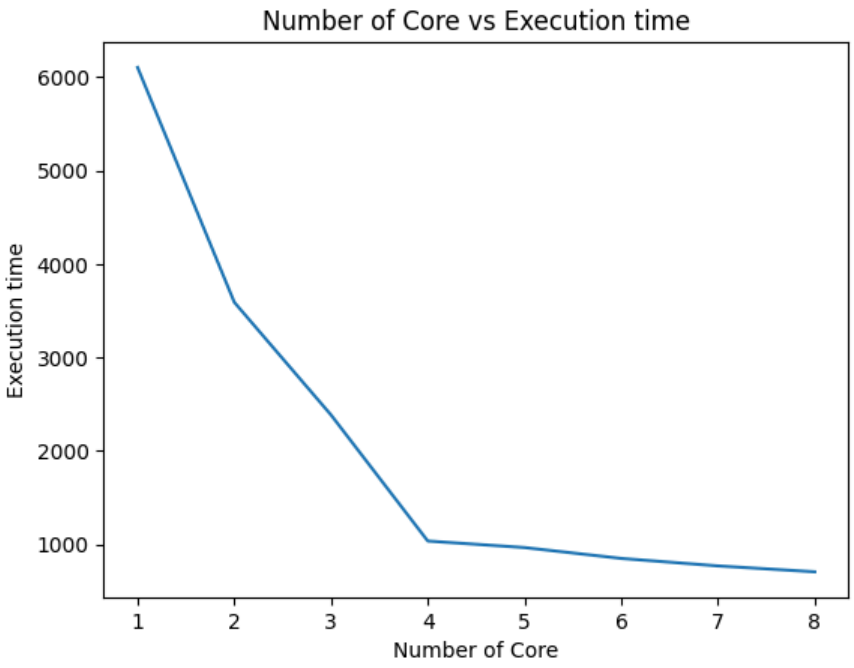
In [4]:
```
data
```

Out[4]:

	Number of Cores	Elapsed Time
0	1	6102.521532
1	2	3590.608773
2	3	2385.136909
3	4	1036.823782
4	5	967.008510
5	6	850.766087
6	7	770.620165
7	8	707.659396

Number of Core vs Execution time

In [5]:
```
plt.plot(data['Number of Cores'], data['Elapsed Time'])
plt.xlabel('Number of Core')
plt.ylabel('Execution time')
plt.title('Number of Core vs Execution time')
plt.show()
```



Number of Core vs Speed Up

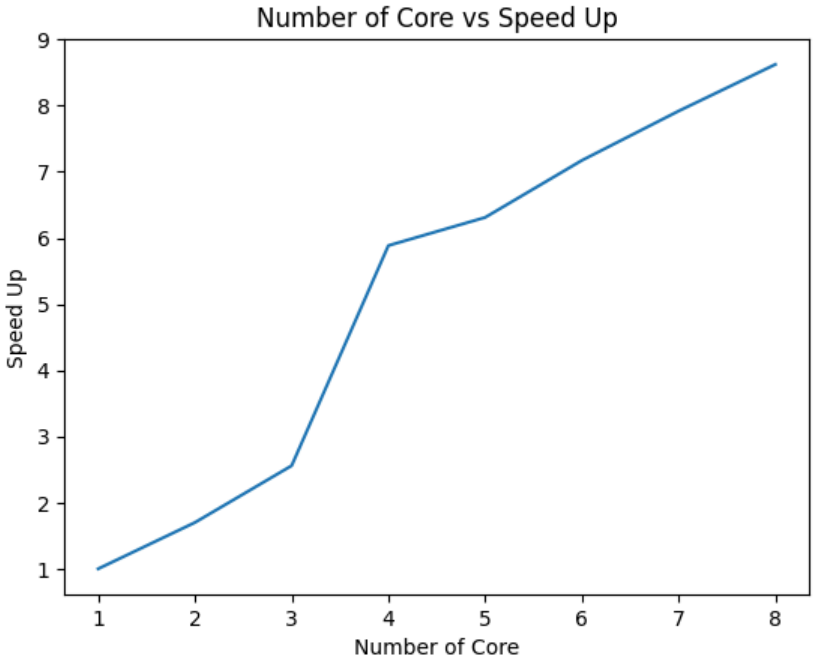
In [6]:
```
data['Elapsed Time'][7]
```

Out[6]:
```
707.6593961715698
```

In [7]:
```
speed_up = []
for i in data['Number of Cores']:
    speed_up.append(data['Elapsed Time'][0] / data['Elapsed Time'][i - 1])

plt.plot(data['Number of Cores'], speed_up)
plt.xlabel('Number of Core')
plt.ylabel('Speed Up')
```

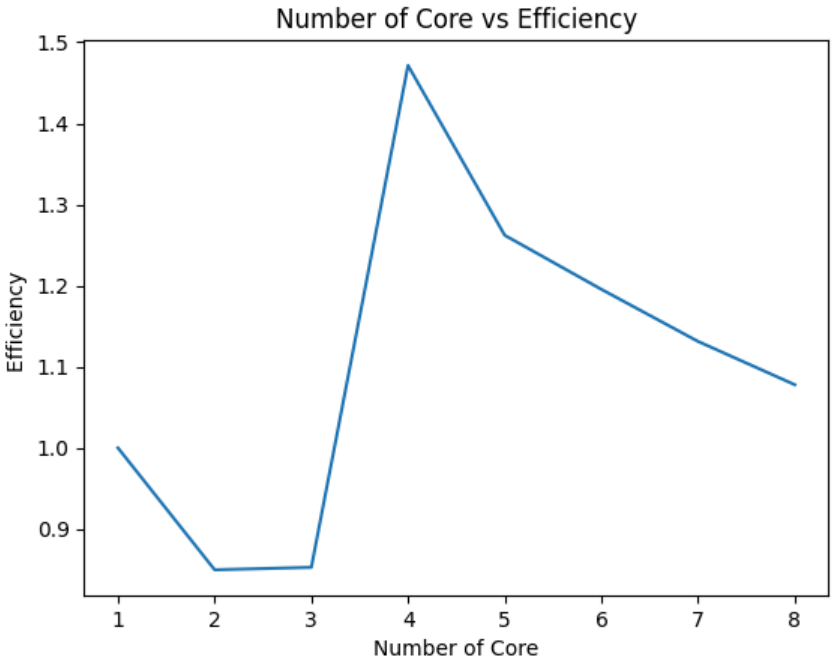
```
plt.title('Number of Core vs Speed Up')
plt.show()
```



Number of Core vs Efficiency

In [8]:
```
Efficiency = []
for num_of_core in data['Number of Cores']:
    Efficiency.append(speed_up[num_of_core - 1] / num_of_core)

plt.plot(data['Number of Cores'], Efficiency)
plt.xlabel('Number of Core')
plt.ylabel('Efficiency ')
plt.title('Number of Core vs Efficiency')
plt.show()
```



In [ ]:
```
```