

Question 7 - An Advertisement agency develops new ads for various clients (like Jewellery shops, Textile shops).The Agency wants to assess their performance, for which they want to know the number of ads they developed in each quarter for different shop category. Help them to visualize data using radar/spider charts. ShopCategory Quarter 1 Quarter 2 Quarter 3 Quarter 4 Textile 10 6 8 13 Jewellery 5 5 2 4 CleaningEssentials 15 20 16 15 Cosmetics 14 10 21 11

```
In [ ]: from matplotlib import pyplot as plt
import pandas as pd
from math import pi
```

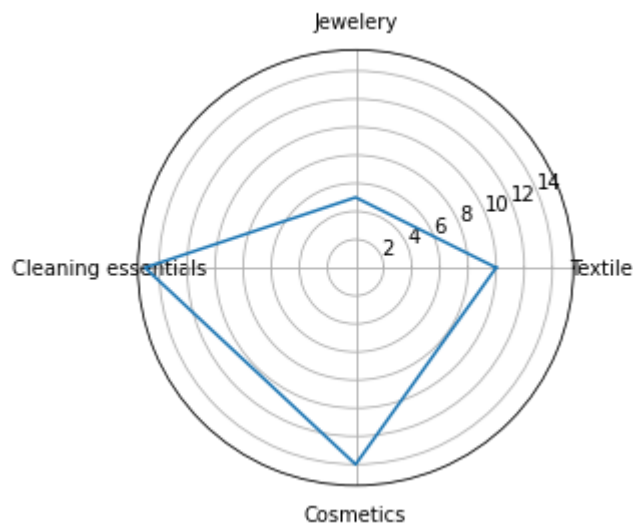
```
In [ ]: shop_category = ['Textile', 'Jewellery', 'Cleaning essentials', 'Cosmetics']
N = len(shop_category)
```

QUARTER 1

```
In [ ]: values1 = [10, 5, 15, 14]
values1 += values1[:1]
```

```
In [ ]: angles1 = [n/float(N)*2*pi for n in range(N)]
angles1 += angles1[:1]
```

```
In [ ]: plt.polar(angles1, values1)
plt.xticks(angles1[:-1], shop_category)
plt.show()
```

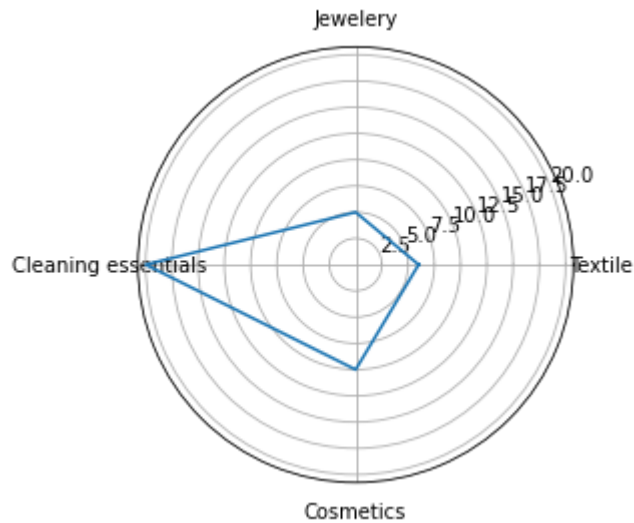


QUARTER 2

```
In [ ]: values2 = [6, 5, 20, 10]
values2 += values2[:1]
```

```
In [ ]: angles2 = [n/float(N)*2*pi for n in range(N)]
        angles2 += angles2[:1]
```

```
In [ ]: plt.polar(angles2, values2)
        plt.xticks(angles2[:-1], shop_category)
        plt.show()
```

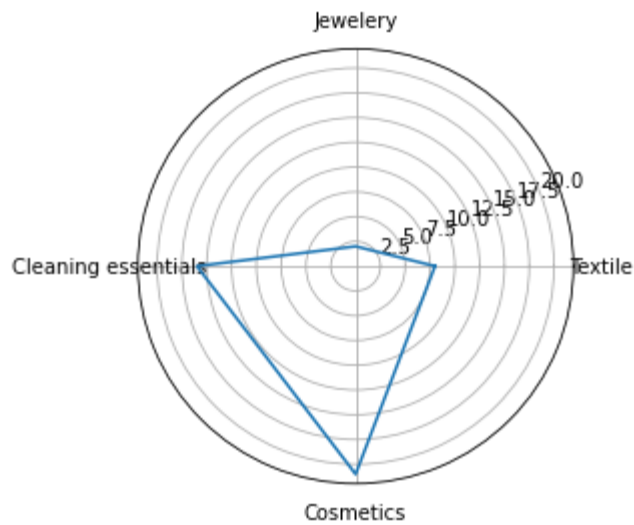


QUARTER 3

```
In [ ]: values3 = [8, 2, 16, 21]
        values3 += values3[:1]
```

```
In [ ]: angles3 = [n/float(N)*2*pi for n in range(N)]
        angles3 += angles3[:1]
```

```
In [ ]: plt.polar(angles3, values3)
        plt.xticks(angles3[:-1], shop_category)
        plt.show()
```



QUARTER 4

```
In [ ]: values4 = [13, 4, 15, 11]
        values4 += values4[:1]
```

```
In [ ]: angles4 = [n/float(N)*2*pi for n in range(N)]
        angles4 += angles4[:1]
```

```
In [ ]: plt.polar(angles4, values4)
        plt.xticks(angles4[:-1], shop_category)
        plt.show()
```

