# Percentages

In this notebook, I will be calculating some percentages. I will first calculate the percentage of cases between 0-18 years old, 18-60 years old, 60+ years old. Those percentages will then be represented in a pie chart.

Importing pandas

In [1]:

```
import pandas as pd
df = pd.read_csv('patient.csv')
```

## Under 18

In the cells below, I will be calculating the percentage of patients that are under 18.

In [5]:

```
total = 0
count = 0

for i in df['birth_year']:
    if i > 1:
        if i > 2002:
            total = total + 1
        count = count + 1

underEighteen = (total/count)*100
print(f"Percentage of patients under 18: {round(underEighteen,2)}")
```

```
Percentage of patients under 18: 11.68
```

## Between 18 and 60 years old

In the cells below, I will be calculating the percentage of patients between 18 and 60 years old

In [8]:

```
total = 0
count = 0

for i in df['birth_year']:
    if i > 1:
        if i >= 1960 and i <= 2002:
            total = total + 1
        count = count + 1

aboveEighteen = (total/count)*100
print(f"Percentage of patients between 18 and 60 years old: {round(aboveEighteen,2)}")
```

```
Percentage of patients between 18 and 60 years old: 44.53
```

## Above 60 years old

In the cells below, I will be calculating the percentage of patients above 60 years old.

In [9]:

```
total = 0
count = 0

for i in df['birth_year']:
    if i > 1:
```

```
        if i < 1960:
            total = total + 1
        count = count + 1

aboveSixty = (total/count)*100
print(f"Percentage of patients above 60 years old: {round(aboveSixty,2)}")
```

```
Percentage of patients above 60 years old: 43.8
```

## Making a pie chart

In the cell below, I will be making a pie chart of the results

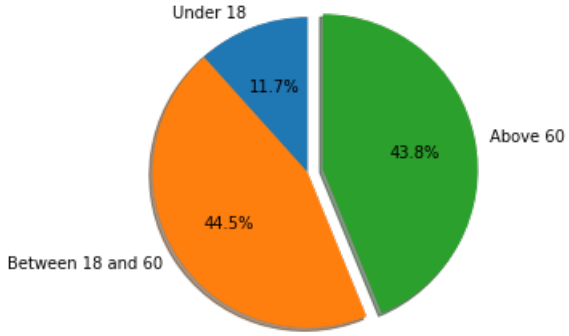
In [14]:

```
import matplotlib.pyplot as plt

labels = 'Under 18', 'Between 18 and 60', 'Above 60',
sizes = [11.67, 44.53, 43.8]
explode = (0, 0, 0.1)

fig1, ax1 = plt.subplots()
ax1.pie(sizes, explode=explode, labels=labels, autopct='%1.1f%%',
        shadow=True, startangle=90)
ax1.axis('equal')  # Equal aspect ratio ensures that pie is drawn as a circle.

plt.show()
```




## Conclusion

In conclusion, we can see that the majority of patients are between 18 and 60 years old. Also, only 11.7% of the patients are under eighteen, which makes them less affected by the COVID-19, and probably less prone to getting the virus