

In [2]:

```
print("Name : Jas")
print("This is a CSV of more than 1300 rows which has bmi data.")
print("The task is to find out what is the percentage of people who are underweight and healthy.")
print("Another task is to find out what is the percentage of male and female who are underweight and healthy.")
```

Name : Jas
 This is a CSV of more than 1300 rows which has bmi data.
 The task is to find out what is the percentage of people who are underweight and healthy. And plot a pie chart around it
 Another task is to find out what is the percentage of male and female who are underweight and healthy. And plot a pie chart around it

In [1]:

```
#BMI Data

#predefine code
import pandas as pd
import matplotlib.pyplot as plt

dataframe = pd.read_csv("bmi.csv")
df = dataframe.dropna()
bmi = df['bmi']
df
```

Out[1]:

	age	gender	bmi	children	smoker	region	charges
0	19	female	27.900	0	yes	southwest	16884.92400
1	18	male	33.770	1	no	southeast	1725.55230
2	28	male	33.000	3	no	southeast	4449.46200
3	33	male	22.705	0	no	northwest	21984.47061
4	32	male	28.880	0	no	northwest	3866.85520
...
1333	50	male	30.970	3	no	northwest	10600.54830
1334	18	female	31.920	0	no	northeast	2205.98080
1335	18	female	36.850	0	no	southeast	1629.83350
1336	21	female	25.800	0	no	southwest	2007.94500
1337	61	female	29.070	0	yes	northwest	29141.36030

1338 rows × 7 columns

In [2]:

```
#Task 1
#How many people are underweight and create a dataframe out of it

underweight_dataframe=df.loc[bmi<18.5]['gender'].reset_index(name='gender')
underweight_dataframe
underweight_count=underweight_dataframe['index'].count()
underweight_count
```

Out[2]:

20

In [3]:

```
#Task 2
#How many people have normal weight and create a dataframe out of it

healthy_weight_dataframe=df.loc[(bmi>18.5)&(bmi<24.9)]['gender'].reset_index(name='gender')
healthy_weight_dataframe
healthy_weight_count=healthy_weight_dataframe['index'].count()
healthy_weight_count
```

Out[3]:

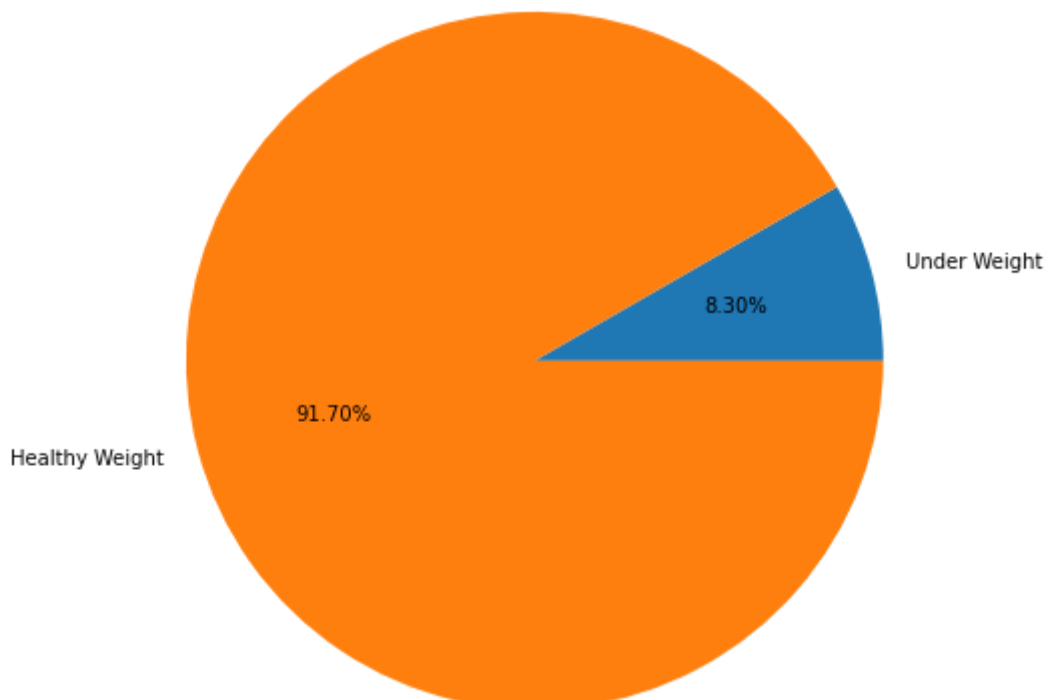
221

In [4]:

```
#Task 3
#Plot a pie chart as per the percentage of people who are underweight and healthy.

value=[underweight_count,healthy_weight_count]
name=['Under Weight','Healthy Weight']

plt.pie(value,labels=name,autopct='%0.2f%%',radius=2)
plt.show()
```



In [5]:

#Task 4

#Group by the gender from underweight dataframe and create another data frame out of it

```
group_underweight=underweight_dataframe.groupby('gender')['gender'].count().reset_index(name='number')
group_underweight
```

Out[5]:

	gender	number
0	female	12
1	male	8

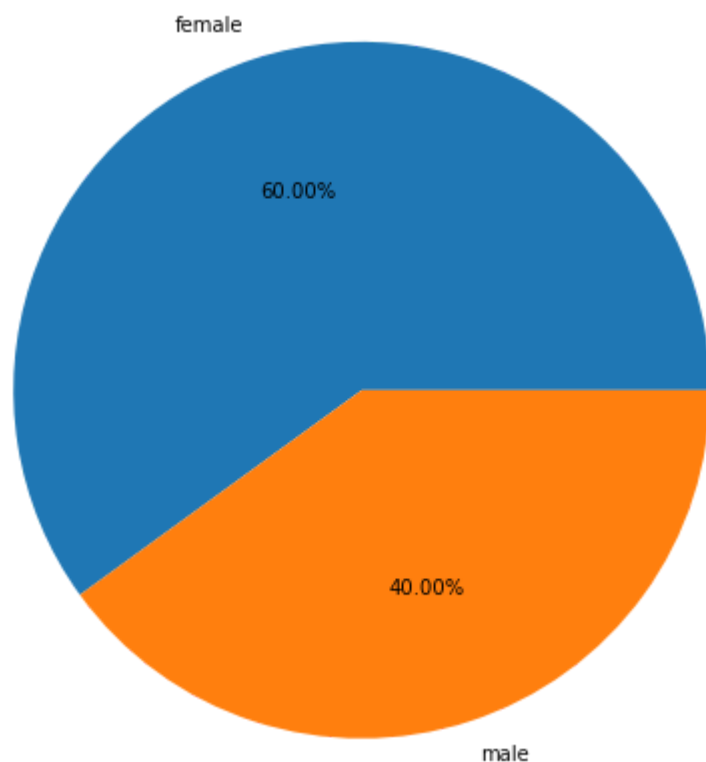
In [6]:

#Task 5

#Plot a pie chart as per the percentage of male and female who are underweight

```
value=group_underweight['number']
name=group_underweight['gender']
```

```
plt.pie(value,labels=name,autopct='%0.2f%%',radius=2)
plt.show()
```



In [7]:

#Task 6

#Group by the gender from healthy weight dataframe and create another data frame out of it

```
group_healthy_weight=healthy_weight_dataframe.groupby('gender')['gender'].count().reset_index  
group_healthy_weight
```

Out[7]:

	gender	number
0	female	115
1	male	106

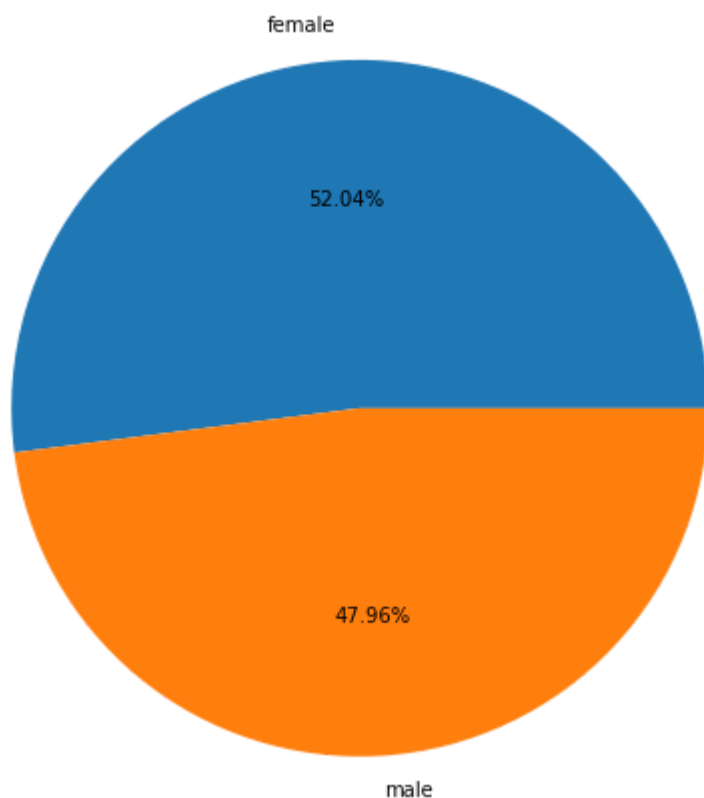
In [8]:

#Task 7

#Plot a pie chart as per the percentage of male and female who are healthy

```
value=group_healthy_weight['number']  
name=group_healthy_weight['gender']
```

```
plt.pie(value,labels=name,autopct='%0.2f%',radius=2)  
plt.show()
```



In []:

