In [26]:

```
import seaborn as sns
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
```

In [29]:

```
table_iris = pd.read_csv("D:\DataScience\DataElement\Iris.csv")
```

In [30]:

```
table_iris
```

Out[30]:

	Id	SepalLengthCm	SepalWidthCm	PetalLengthCm	PetalWidthCm	Species
0	1	5.1	3.5	1.4	0.2	Iris-setosa
1	2	4.9	3.0	1.4	0.2	Iris-setosa
2	3	4.7	3.2	1.3	0.2	Iris-setosa
3	4	4.6	3.1	1.5	0.2	Iris-setosa
4	5	5.0	3.6	1.4	0.2	Iris-setosa
...	...	...	...	...	...	...
145	146	6.7	3.0	5.2	2.3	Iris-virginica
146	147	6.3	2.5	5.0	1.9	Iris-virginica
147	148	6.5	3.0	5.2	2.0	Iris-virginica
148	149	6.2	3.4	5.4	2.3	Iris-virginica
149	150	5.9	3.0	5.1	1.8	Iris-virginica

150 rows × 6 columns

In [31]:

```
table_iris.head()
```

Out[31]:

	Id	SepalLengthCm	SepalWidthCm	PetalLengthCm	PetalWidthCm	Species
0	1	5.1	3.5	1.4	0.2	Iris-setosa
1	2	4.9	3.0	1.4	0.2	Iris-setosa
2	3	4.7	3.2	1.3	0.2	Iris-setosa
3	4	4.6	3.1	1.5	0.2	Iris-setosa
4	5	5.0	3.6	1.4	0.2	Iris-setosa

In [32]:

```
table_iris = table_iris.drop("Id", axis=1)
```

In [33]:

```
table_iris.head()
```

Out[33]:

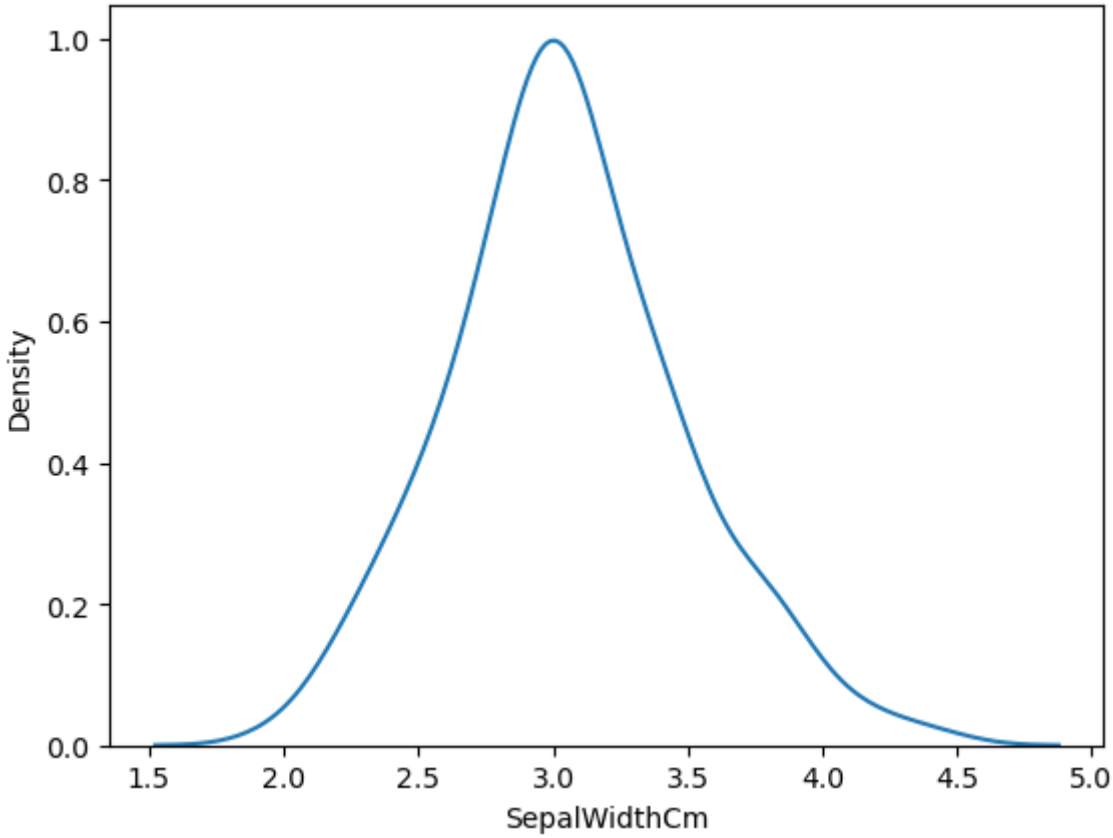
	SepalLengthCm	SepalWidthCm	PetalLengthCm	PetalWidthCm	Species
0	5.1	3.5	1.4	0.2	Iris-setosa
1	4.9	3.0	1.4	0.2	Iris-setosa
2	4.7	3.2	1.3	0.2	Iris-setosa
3	4.6	3.1	1.5	0.2	Iris-setosa
4	5.0	3.6	1.4	0.2	Iris-setosa

In [34]:

```
sns.kdeplot(table_iris["SepalWidthCm"])   #
```

Out[34]:

```
<Axes: xlabel='SepalWidthCm', ylabel='Density'>
```



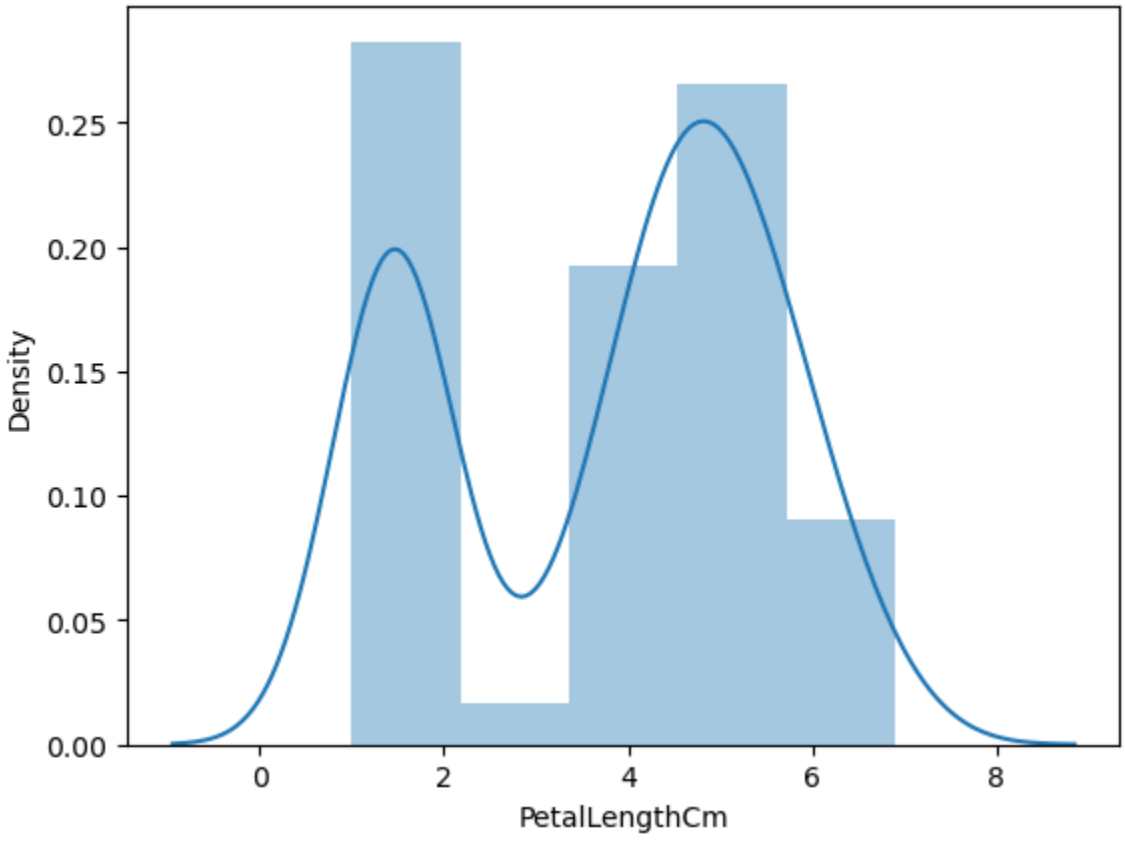
In [35]:

```
sns.distplot(table_iris["PetalLengthCm"],kde=True)
```

```
C:\Users\johnb\AppData\Local\Temp\ipykernel_3680\2845302684.py:1: UserWarn
ing:

`distplot` is a deprecated function and will be removed in seaborn v0.14.
0.

Please adapt your code to use either `displot` (a figure-level function wi
th
similar flexibility) or `histplot` (an axes-level function for histogram
s).

For a guide to updating your code to use the new functions, please see
https://gist.github.com/mwaskom/de44147ed2974457ad6372750bbe5751 (https://
gist.github.com/mwaskom/de44147ed2974457ad6372750bbe5751)

  sns.distplot(table_iris["PetalLengthCm"],kde=True)
```

Out[35]:

```
<Axes: xlabel='PetalLengthCm', ylabel='Density'>
```

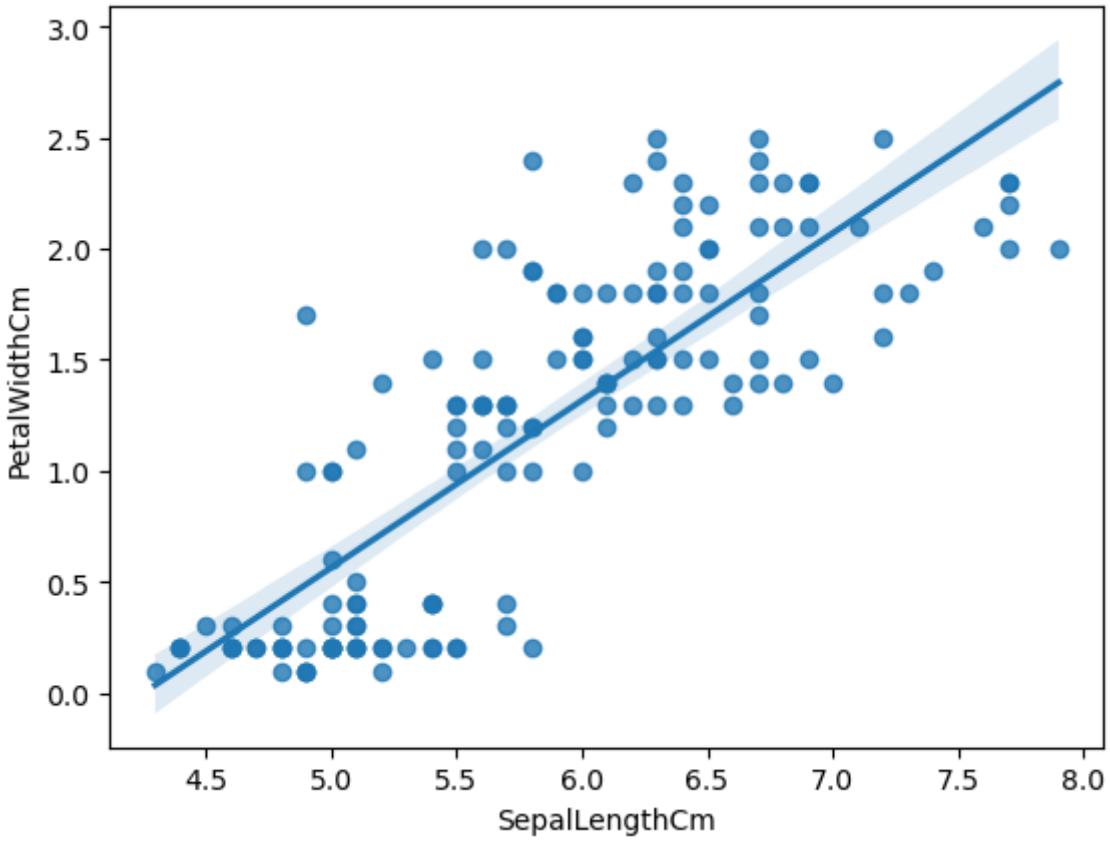


In [36]:

```
# regression plot is used to visualize the effect of one variable to another such that th
# y axis shows the dependent variable and x axis shows the independent variable
sns.regplot(x=table_iris["SepalLengthCm"], y = table_iris["PetalWidthCm"],fit_reg=True)
```

Out[36]:

```
<Axes: xlabel='SepalLengthCm', ylabel='PetalWidthCm'>
```

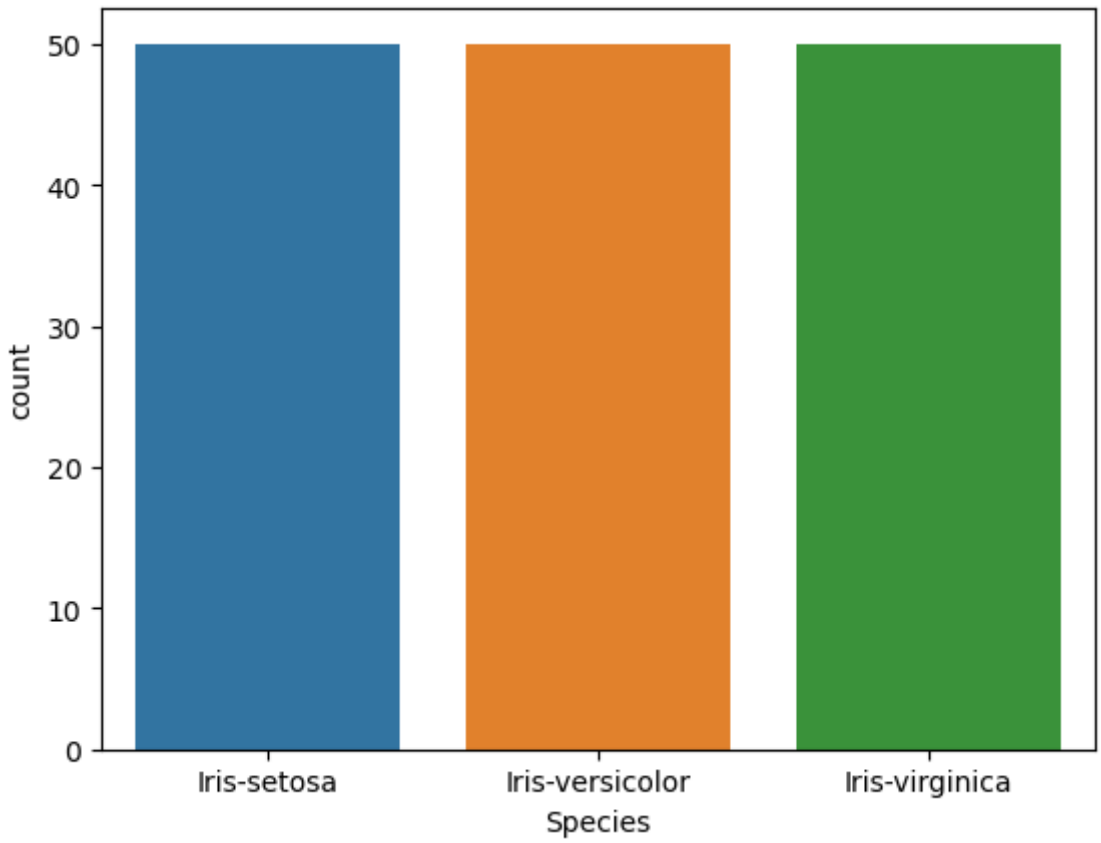


In [37]:

```
sns.countplot(x=table_iris["Species"])
```

Out[37]:

```
<Axes: xlabel='Species', ylabel='count'>
```



In [42]:

```
df1 = pd.read_csv("D:\DataScience\DataElement\Insurance.csv")
```

In [43]:

```
df1.head()
```

Out[43]:

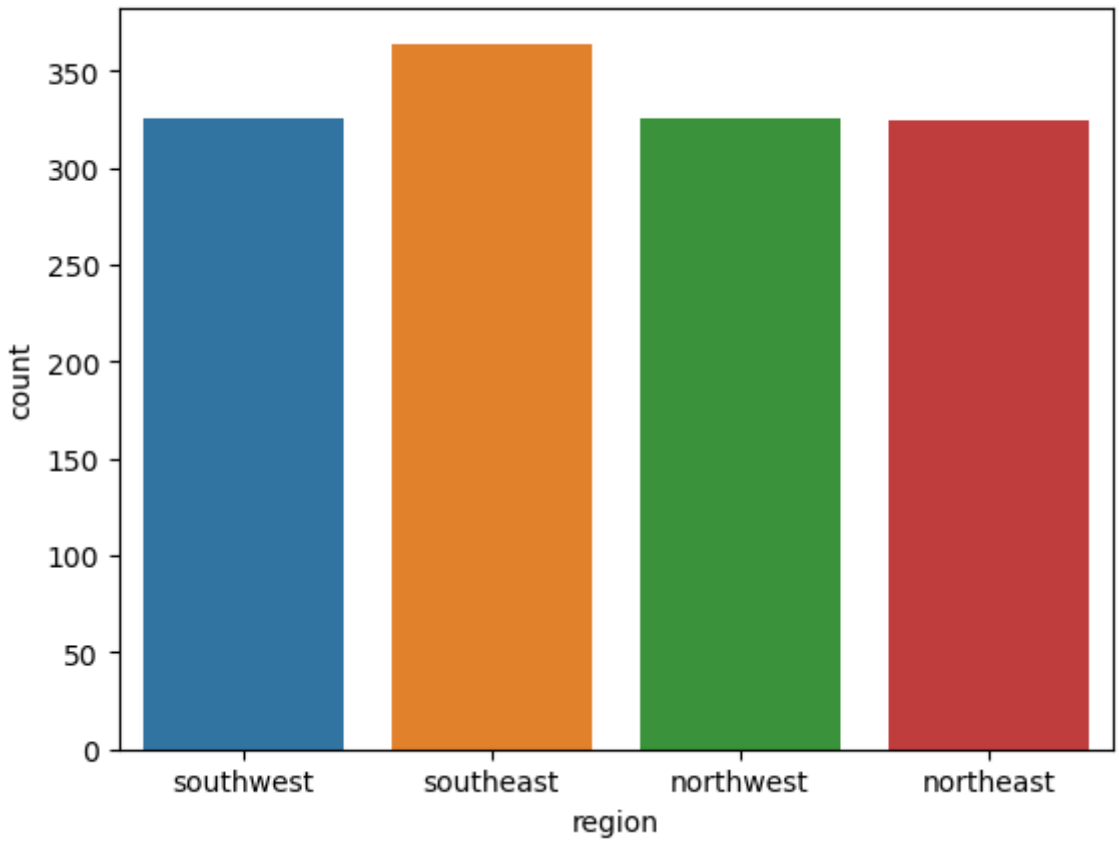
	age	sex	bmi	children	smoker	region	charges
0	19	female	27.900	0	yes	southwest	16884.92400
1	18	male	33.770	1	no	southeast	1725.55230
2	28	male	33.000	3	no	southeast	4449.46200
3	33	male	22.705	0	no	northwest	21984.47061
4	32	male	28.880	0	no	northwest	3866.85520

In [46]:

```
sns.countplot(x=df1["region"])
```

Out[46]:

```
<Axes: xlabel='region', ylabel='count'>
```

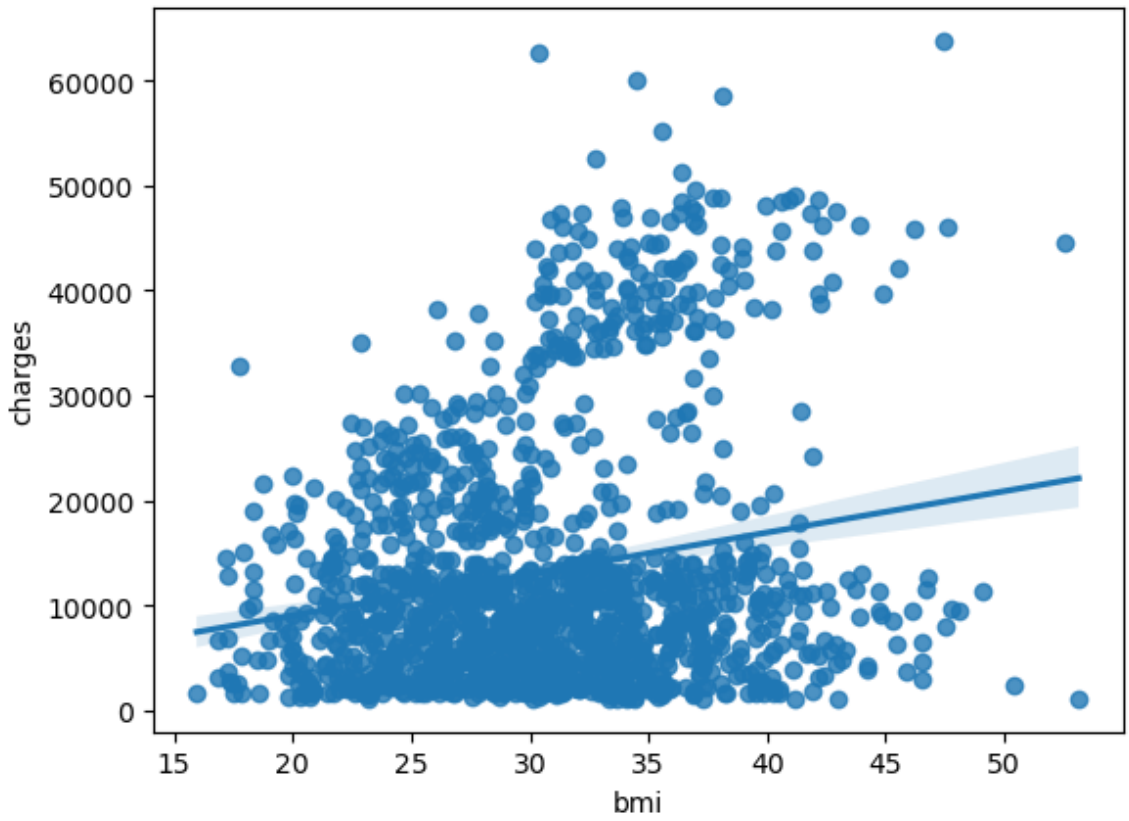


In [49]:

```
sns.regplot(x=df1["bmi"], y = df1["charges"],fit_reg=True)
```

Out[49]:

```
<Axes: xlabel='bmi', ylabel='charges'>
```

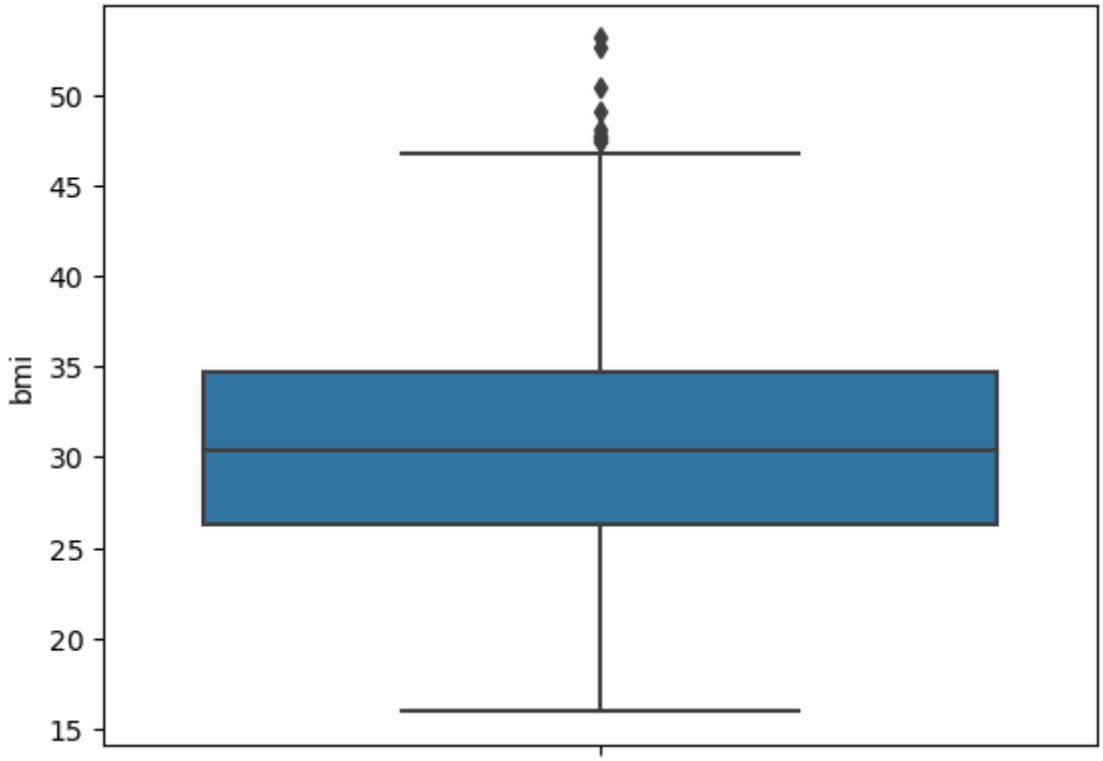


In [50]:

```
# to show the outlier present in the data we create the box
sns.boxplot(y = df1["bmi"])
```

Out[50]:

<Axes: ylabel='bmi'>

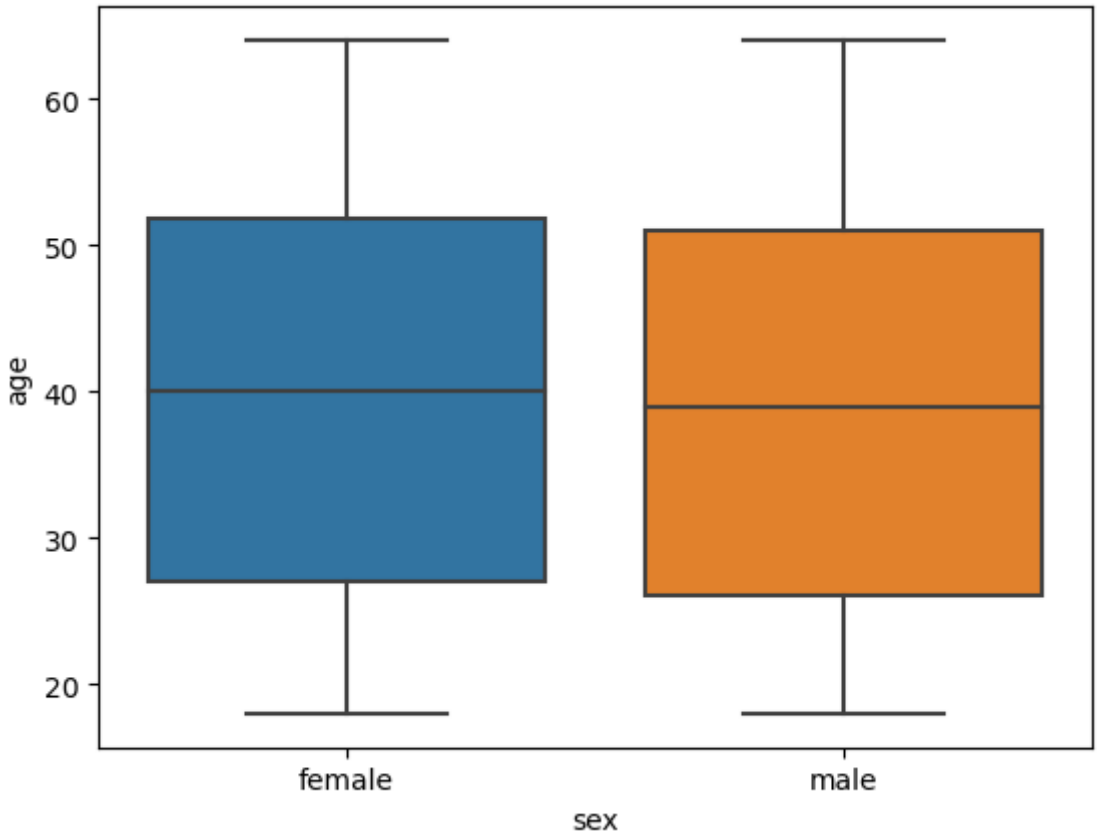


In [51]:

```
# coparing the categorial to numerical variable
sns.boxplot(x="sex", y="age", data=df1)
```

Out[51]:

```
<Axes: xlabel='sex', ylabel='age'>
```



In [ ]:

```
#heeatmap: core relation - is the selection between every variable exist in dataset .
```

In [ ]:

```
cor=df1.corr()
```

In [54]:

```
cor
```

Out[54]:

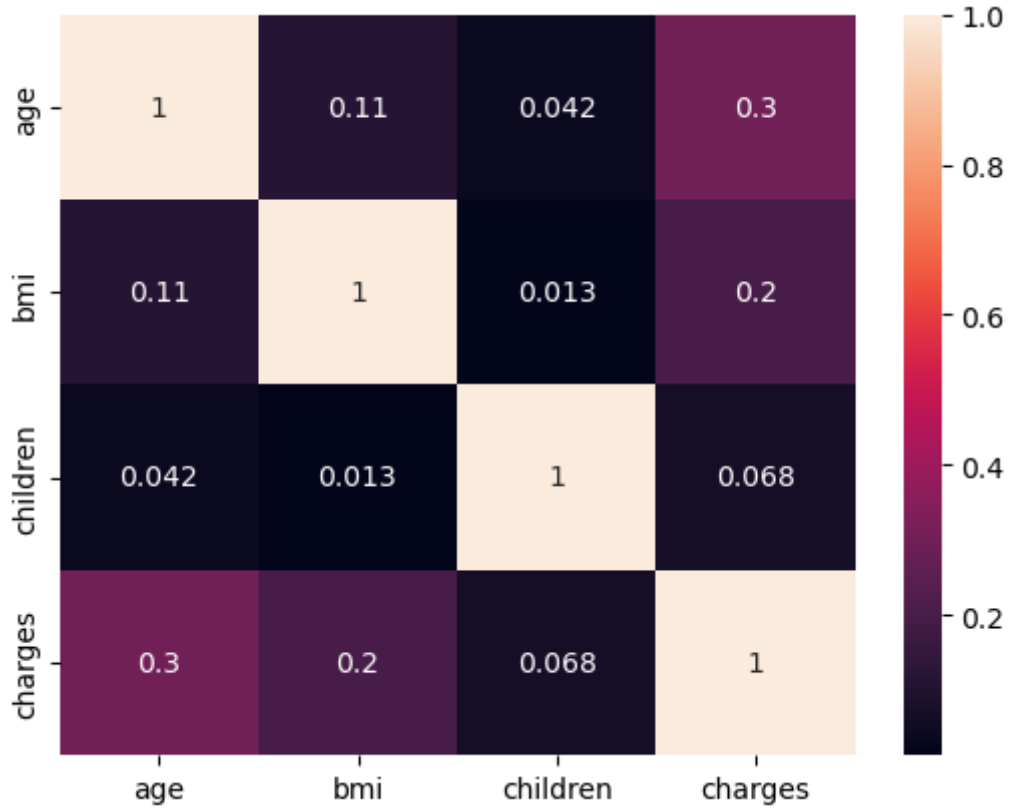
	age	bmi	children	charges
age	1.000000	0.109272	0.042469	0.299008
bmi	0.109272	1.000000	0.012759	0.198341
children	0.042469	0.012759	1.000000	0.067998
charges	0.299008	0.198341	0.067998	1.000000

In [55]:

```
sns.heatmap(cor,annot=True)
```

Out[55]:

<Axes: >



In [ ]:

```
```