In [1]:
```
def factorial(num):
    fact = 1
    if num == 0 or num == 1:
        return 1
    else:
        for i in range(2,num+1):
            fact*=i


    return fact
if __name__ == "__main__":
    num=int(input())
    print(factorial(num))
```

```
10
3628800
```

In [2]:
```
def factorial (number):
    fact=1
    if number==0 or number==1:
        return 1
    else:
        for i in range(2,number+1):
            fact*=i

    return fact
if __name__ == "__main__":
    num=int(input())
    print(factorial(num))
```

```
5
120
```

In [3]:
```
wget https://pixabay.com/photos/ch%c3%a2teau-woman-gate-6978102/
```

```
  Input In [3]
    wget https://pixabay.com/photos/ch%c3%a2teau-woman-gate-6978102/
         ^
SyntaxError: invalid syntax
```

photo

image

certificate

In [ ]:
```
pip install Pillow
```

In [4]:
```
# Python program to illustrate
# function with main
def getInteger():
    result = int(input("Enter integer: "))
    return result

def Main():
    print("Started")

    # calling the getInteger function and
    # storing its returned value in the output variable
    output = getInteger()
    print(output)

# now we are required to tell Python
# for 'Main' function existence
if __name__=="__main__":
    Main()
```

```
Started
Enter integer: 51
51
```

In [9]:
```
# Python program to illustrate
# function with main
def getInteger():
    result = int(input("Enter integer: "))
    return result

def Main():
    print("Started")

    # calling the getInteger function and
    # storing its returned value in the output variable
    output = getInteger()
    print(output)
```

```
# now we are required to tell Python
# for 'Main' function existence
if __name__=="__main__":
    Main()
```

```
Started
Enter integer: 20
20
```

In [10]:
```
pip install seaborn
```

```
Requirement already satisfied: seaborn in c:\users\deepak kumar\anaconda3\lib\site-packages (0.11.2)Note: you m
ay need to restart the kernel to use updated packages.

Requirement already satisfied: numpy>=1.15 in c:\users\deepak kumar\anaconda3\lib\site-packages (from seaborn)
(1.21.5)
Requirement already satisfied: matplotlib>=2.2 in c:\users\deepak kumar\anaconda3\lib\site-packages (from seabo
rn) (3.5.1)
Requirement already satisfied: scipy>=1.0 in c:\users\deepak kumar\anaconda3\lib\site-packages (from seaborn) (
1.7.3)
Requirement already satisfied: pandas>=0.23 in c:\users\deepak kumar\anaconda3\lib\site-packages (from seaborn)
(1.4.2)
Requirement already satisfied: python-dateutil>=2.7 in c:\users\deepak kumar\anaconda3\lib\site-packages (from
matplotlib>=2.2->seaborn) (2.8.2)
Requirement already satisfied: pillow>=6.2.0 in c:\users\deepak kumar\anaconda3\lib\site-packages (from matplot
lib>=2.2->seaborn) (9.0.1)
Requirement already satisfied: pyparsing>=2.2.1 in c:\users\deepak kumar\anaconda3\lib\site-packages (from matp
lotlib>=2.2->seaborn) (3.0.4)
Requirement already satisfied: cycler>=0.10 in c:\users\deepak kumar\anaconda3\lib\site-packages (from matplotl
ib>=2.2->seaborn) (0.11.0)
Requirement already satisfied: fonttools>=4.22.0 in c:\users\deepak kumar\anaconda3\lib\site-packages (from mat
plotlib>=2.2->seaborn) (4.25.0)
Requirement already satisfied: kiwisolver>=1.0.1 in c:\users\deepak kumar\anaconda3\lib\site-packages (from mat
plotlib>=2.2->seaborn) (1.3.2)
Requirement already satisfied: packaging>=20.0 in c:\users\deepak kumar\anaconda3\lib\site-packages (from matpl
otlib>=2.2->seaborn) (21.3)
Requirement already satisfied: pytz>=2020.1 in c:\users\deepak kumar\anaconda3\lib\site-packages (from pandas>=
0.23->seaborn) (2021.3)
Requirement already satisfied: six>=1.5 in c:\users\deepak kumar\anaconda3\lib\site-packages (from python-dateu
til>=2.7->matplotlib>=2.2->seaborn) (1.16.0)
```

In [11]:
```
import seaborn as sns
import numpy as np
import matplotlib.pyplot as plt
%matplotlib inline
```

In [12]:
```
import statistics
```

In [15]:
```
df=sns.load_dataset('tips')
```

In [16]:
```
df.head()
```

Out[16]:

	total_bill	tip	sex	smoker	day	time	size
0	16.99	1.01	Female	No	Sun	Dinner	2
1	10.34	1.66	Male	No	Sun	Dinner	3
2	21.01	3.50	Male	No	Sun	Dinner	3
3	23.68	3.31	Male	No	Sun	Dinner	2
4	24.59	3.61	Female	No	Sun	Dinner	4

In [17]:
```
np.mean(df['total_bill'])
```

Out[17]:
```
19.785942622950824
```

In [19]:
```
np.median(df['total_bill'])
```

Out[19]:
```
17.795
```

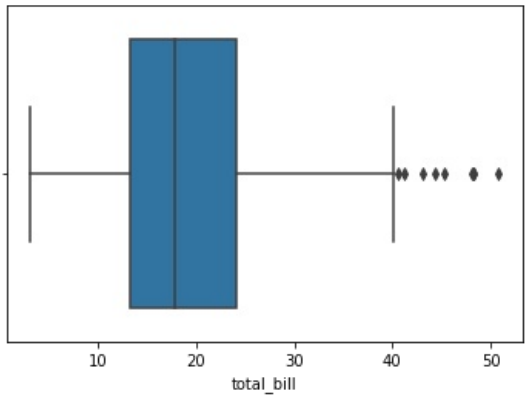
In [20]:
```
statistics.mode(df['total_bill'])
```

Out[20]:
```
13.42
```

In [21]:
```
sns.boxplot(df['total_bill'])
```

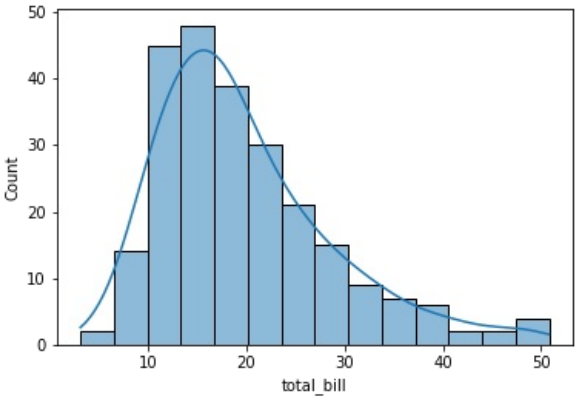
```
C:\Users\Deepak Kumar\anaconda3\lib\site-packages\seaborn\_decorators.py:36: FutureWarning: Pass the following
variable as a keyword arg: x. From version 0.12, the only valid positional argument will be `data`, and passing
other arguments without an explicit keyword will result in an error or misinterpretation.
  warnings.warn(
```

Out[21]:
```
<AxesSubplot:xlabel='total_bill'>
```



In [23]:
```
sns.histplot(df['total_bill'],kde=True)
```

Out[23]:
```
<AxesSubplot:xlabel='total_bill', ylabel='Count'>
```



In [27]:
```
df1=sns.load_dataset('iris')
```

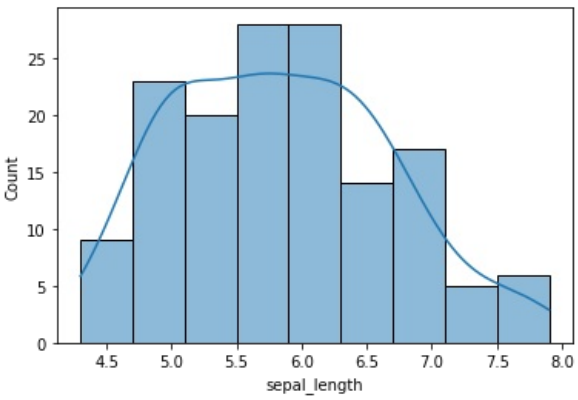
In [28]:
```
df1.head()
```

Out[28]:

	sepal_length	sepal_width	petal_length	petal_width	species
0	5.1	3.5	1.4	0.2	setosa
1	4.9	3.0	1.4	0.2	setosa
2	4.7	3.2	1.3	0.2	setosa
3	4.6	3.1	1.5	0.2	setosa
4	5.0	3.6	1.4	0.2	setosa

In [30]:
```
sns.histplot(df1['sepal_length'],kde=True)
```

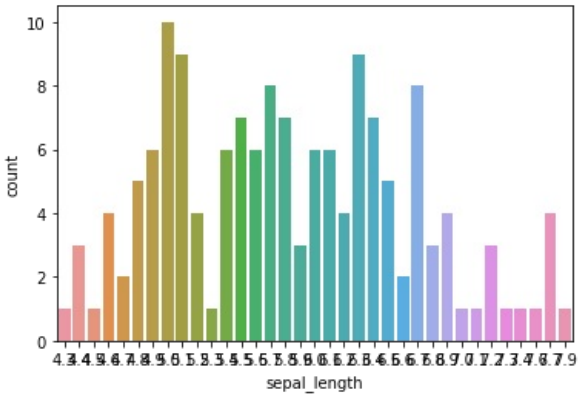
Out[30]:
```
<AxesSubplot:xlabel='sepal_length', ylabel='Count'>
```



In [32]:
```
sns.countplot(df1['sepal_length'])
```

```
C:\Users\Deepak Kumar\anaconda3\lib\site-packages\seaborn\_decorators.py:36: FutureWarning: Pass the following
variable as a keyword arg: x. From version 0.12, the only valid positional argument will be `data`, and passing
other arguments without an explicit keyword will result in an error or misinterpretation.
  warnings.warn(
```

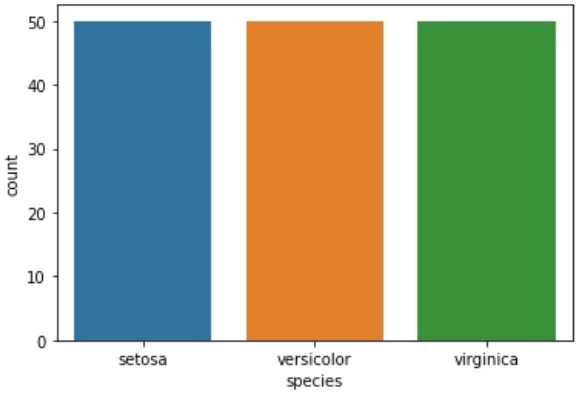
Out[32]:
```
<AxesSubplot:xlabel='sepal_length', ylabel='count'>
```



In [33]:
```
sns.countplot(df1['species'])
```

```
C:\Users\Deepak Kumar\anaconda3\lib\site-packages\seaborn\_decorators.py:36: FutureWarning: Pass the following
variable as a keyword arg: x. From version 0.12, the only valid positional argument will be `data`, and passing
other arguments without an explicit keyword will result in an error or misinterpretation.
  warnings.warn(
```

Out[33]:
```
<AxesSubplot:xlabel='species', ylabel='count'>
```



In [34]:
```
np.percentile(df1['sepal_length'],[25,75])
```

Out[34]:
```
array([5.1, 6.4])
```

In [ ]:
```
```

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