## **Participant**

```
Title= "Matric Student"

Name= "Muhammad Bin Saqib Ali"

email = "muhammad.saqib8761@gmail.com"

whatsapp = "00923470159155"
```

### **BOX PLOTS**

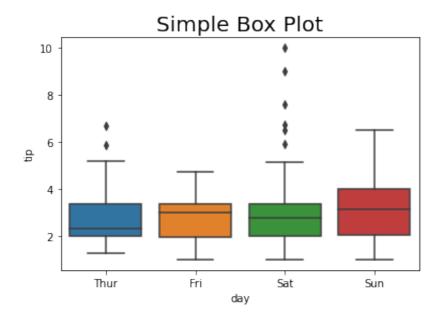
```
In []:  # import libraries
  import pandas as pd
  import seaborn as sns
  import matplotlib.pyplot as plt
  # import data
  data=sns.load_dataset("tips")

  data.head ()
```

```
Out[]:
            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
         2
                21.01 3.50
                             Male
                                       No Sun Dinner
                                                         3
         3
               23.68 3.31
                             Male
                                       No Sun Dinner
                                                         2
               24.59 3.61 Female
                                       No Sun Dinner
```

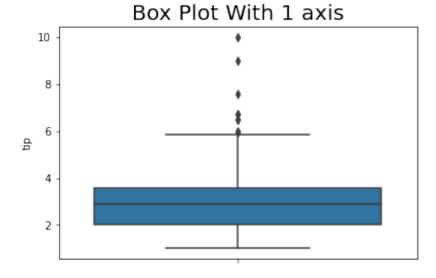
# Simple Box Plot

```
import library
import pandas as pd
import seaborn as sns
import matplotlib.pyplot as plt
#import data
data=sns.load_dataset("tips")
#assign plot
sns.boxplot(x="day", y="tip", data=data)
#title
plt.title("Simple Box Plot", size=20)
plt.show ()
```



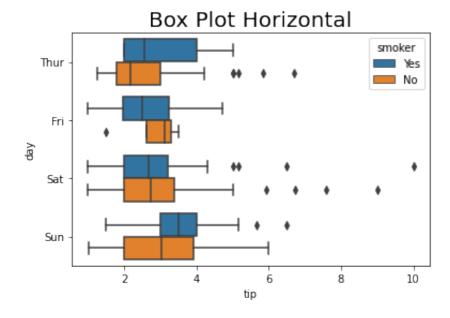
## Box Plot With 1 axis

```
In []:
    #import library
    import pandas as pd
    import seaborn as sns
    import matplotlib.pyplot as plt
    #import data
    data=sns.load_dataset("tips")
    #assign plot
    sns.boxplot(y="tip", data=data)
    #title
    plt.title("Box Plot With 1 axis", size=20)
    plt.show ()
```



## **Horizontal Box Plot**

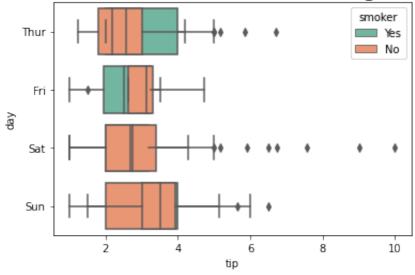
```
In []:
    #import library
    import pandas as pd
    import seaborn as sns
    import matplotlib.pyplot as plt
    #import data
    data=sns.load_dataset("tips")
    #assign plot
    sns.boxplot(x="tip", y="day",data=data,hue="smoker")
    #title
    plt.title("Box Plot Horizontal", size=20)
    plt.show ()
```



# Box Plot With Pallette, Hue and Dodge function

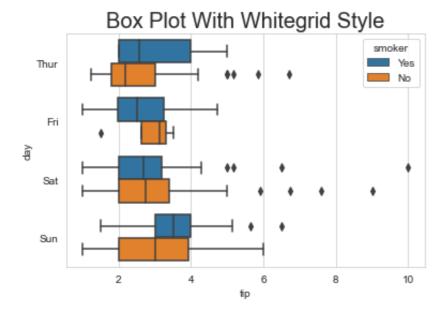
```
In []:
    #import library
    import pandas as pd
    import seaborn as sns
    import matplotlib.pyplot as plt
    #import data
    data=sns.load_dataset("tips")
    #assign plot
    sns.boxplot(x="tip", y="day",data=data,hue="smoker",palette="Set2",dodge=Fa#title
    plt.title("Box Plot With Pallette, Hue and Dodge function", size=20)
    plt.show ()
```

#### Box Plot With Pallette, Hue and Dodge function



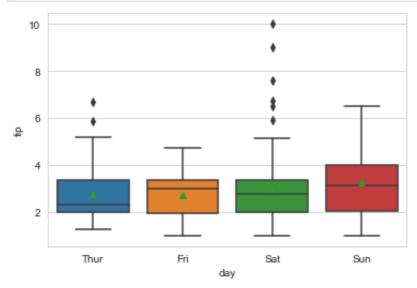
# **Box Plot With Whitegrid Style**

```
In []:
    #import library
    import pandas as pd
    import seaborn as sns
    import matplotlib.pyplot as plt
    # Backgroun Style
    sns.set_style("whitegrid")
    #import data
    data=sns.load_dataset("tips")
    #assign plot
    sns.boxplot(x="tip", y="day",data=data,hue="smoker")
    #title
    plt.title("Box Plot With Whitegrid Style", size=20)
    plt.show ()
```



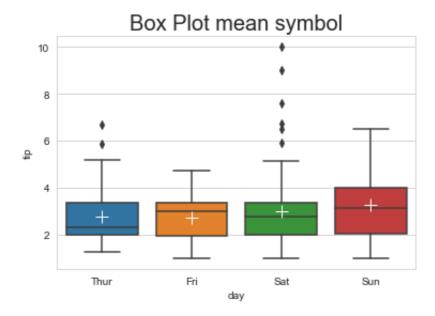
# Box Plot With Mean Symbol in Middle Of Box

```
In []:
    #import library
    import pandas as pd
    import seaborn as sns
    import matplotlib.pyplot as plt
    # Backgroun Style
    sns.set_style=("dark")
    #import data
    data=sns.load_dataset("tips")
    #assign plot
    sns.boxplot(x="day", y="tip", showmeans=True,data=data)
    plt.show ()
```



# Box Plot With Diffrent Style of Mean Symbol

```
In [ ]:
         #import library
         import pandas as pd
         import seaborn as sns
         import matplotlib.pyplot as plt
         # Backgroun Style
         sns.set style=("dark")
         #import data
         data=sns.load dataset("tips")
         #assign plot
         sns.boxplot(x="day", y="tip", showmeans=True,
                    meanprops={"marker":"+",
                               "markersize": "12",
                               "markeredgecolor": "white"}, data=data)
         #title
         plt.title("Box Plot mean symbol", size=20)
         plt.show ()
```



#### Box Plot with hue

```
In []:
    #import library
    import pandas as pd
    import seaborn as sns
    import matplotlib.pyplot as plt
    # Backgroun Style
    sns.set_style=("dark")
    #import data
    data=sns.load_dataset("tips")
    #assign plot
    sns.boxplot(x="day", y="tip",data=data, hue="smoker")
    #title
    plt.title("Box Plot with hue", size=20)
    plt.show ()
```

