In [ ]:
```
#CLEANING EMPTY CELLS
```

In [40]:
```
#dropna() helps to clean empty cells by removing row #returns a new data frame wi
import pandas as pd
x= pd.read_csv("E:\\Book1.csv")
print(x.to_string())
y=x.dropna()   #x.dropna(inplace = True) removes all rows with null values
print(y.to_string)
```

```
   S.No  Fruits   Price  quantity
0   1.0   APPLE  $3.00         5.0
1   2.0  BANANA  $4.00         9.0
2   NaN  GRAPES     NaN       NaN
3   4.0   GAUVA  $6.00         6.0
4   5.0   mango  $8.00         8.0
<bound method DataFrame.to_string of    S.No  Fruits   Price  quantity
0   1.0   APPLE  $3.00         5.0
1   2.0  BANANA  $4.00         9.0
3   4.0   GAUVA  $6.00         6.0
4   5.0   mango  $8.00         8.0>
```

In [39]:
```
#fillna() helps to replace empty cells with a value
import pandas as pd
x= pd.read_csv("E:\\Book1.csv")
print(x.to_string())
x.fillna("$5.00 ",inplace= True)
print(x.to_string)
```

```
   S.No  Fruits   Price  quantity
0   1.0   APPLE  $3.00         5.0
1   2.0  BANANA  $4.00         9.0
2   NaN  GRAPES     NaN       NaN
3   4.0   GAUVA  $6.00         6.0
4   5.0   mango  $8.00         8.0
<bound method DataFrame.to_string of      S.No  Fruits   Price quantity
0     1.0   APPLE  $3.00       5.0
1     2.0  BANANA  $4.00       9.0
2  $5.00   GRAPES  $5.00    $5.00
3     4.0   GAUVA  $6.00       6.0
4     5.0   mango  $8.00       8.0>
```

In [38]:
```
#GIVING specific coloumn name helps to replace empty values for one column,
import pandas as pd
x= pd.read_csv("E:\\Book1.csv")
print(x.to_string())
x["Price"].fillna("$5.00 ", inplace= True)
print(x.to_string)
```

```
   S.No  Fruits   Price  quantity
0   1.0   APPLE  $3.00        5.0
1   2.0  BANANA  $4.00        9.0
2   NaN  GRAPES     NaN       NaN
3   4.0   GAUVA  $6.00        6.0
4   5.0   mango  $8.00        8.0
<bound method DataFrame.to_string of    S.No  Fruits   Price  quantity
0   1.0   APPLE  $3.00        5.0
1   2.0  BANANA  $4.00        9.0
2   NaN  GRAPES  $5.00        NaN
3   4.0   GAUVA  $6.00        6.0
4   5.0   mango  $8.00        8.0>
```

In [37]:
```
import pandas as pd
x= pd.read_csv("E:\\Book1.csv")
print(x.to_string())
x["Price"].fillna("$5.00 ", inplace= False)
print(x.to_string)
```

```
   S.No  Fruits   Price  quantity
0   1.0   APPLE  $3.00        5.0
1   2.0  BANANA  $4.00        9.0
2   NaN  GRAPES     NaN       NaN
3   4.0   GAUVA  $6.00        6.0
4   5.0   mango  $8.00        8.0
<bound method DataFrame.to_string of    S.No  Fruits   Price  quantity
0   1.0   APPLE  $3.00        5.0
1   2.0  BANANA  $4.00        9.0
2   NaN  GRAPES     NaN       NaN
3   4.0   GAUVA  $6.00        6.0
4   5.0   mango  $8.00        8.0>
```

In [36]:
```
# to replace empty cells  we can use the mean() median() and mode() methods to co
import pandas as pd
df=pd.read_csv("E:\\Book1.csv")
print(df.to_string())
x=df["quantity"].median()
df["quantity"].fillna(x,inplace=True)
print(df.to_string)
```

```
   S.No  Fruits   Price  quantity
0   1.0   APPLE  $3.00         5.0
1   2.0  BANANA  $4.00         9.0
2   NaN  GRAPES     NaN        NaN
3   4.0   GAUVA  $6.00         6.0
4   5.0   mango  $8.00         8.0
<bound method DataFrame.to_string of    S.No  Fruits   Price  quantity
0   1.0   APPLE  $3.00         5.0
1   2.0  BANANA  $4.00         9.0
2   NaN  GRAPES     NaN        7.0
3   4.0   GAUVA  $6.00         6.0
4   5.0   mango  $8.00         8.0>
```

In [46]:
```
import pandas as pd
df=pd.read_csv("E:\\Book1.csv")
print(df.to_string())
x=df["quantity"].mode()[0]
df["quantity"].fillna(x,inplace=True)
print(df.to_string)
```

```
   S.No  Fruits   Price  quantity
0   1.0   APPLE  $3.00         5.0
1   2.0  BANANA  $4.00         9.0
2   NaN  GRAPES     NaN        NaN
3   4.0   GAUVA  $6.00         6.0
4   5.0   mango  $8.00         8.0
<bound method DataFrame.to_string of    S.No  Fruits   Price  quantity
0   1.0   APPLE  $3.00         5.0
1   2.0  BANANA  $4.00         9.0
2   NaN  GRAPES     NaN        8.0
3   4.0   GAUVA  $6.00         6.0
4   5.0   mango  $8.00         8.0>
```

In [47]:
```
import pandas as pd
df=pd.read_csv("E:\\Book1.csv")
print(df.to_string())
x=df["S.No"].mode()[0]
df["S.No"].fillna(x,inplace=True)
print(df.to_string)
```

```
   S.No  Fruits   Price  quantity
0   1.0   APPLE  $3.00         5.0
1   2.0  BANANA  $4.00         9.0
2   NaN  GRAPES     NaN       NaN
3   4.0   GAUVA  $6.00         6.0
4   5.0   mango  $8.00         8.0
<bound method DataFrame.to_string of    S.No  Fruits   Price  quantity
0   1.0   APPLE  $3.00         5.0
1   2.0  BANANA  $4.00         9.0
2   1.0  GRAPES     NaN       NaN
3   4.0   GAUVA  $6.00         6.0
4   5.0   mango  $8.00         8.0>
```

In [ ]: