

(*Note: This is not real data and used purely for practice*)

```
In[1]:= data = {  
    {"Product", "Region", "Sales", "Profit"},  
    {"A", "North", 250, 50},  
    {"B", "South", 150, 30},  
    {"C", "East", 200, 40},  
    {"D", "West", 300, 60},  
    {"E", "North", 270, 55},  
    {"F", "East", 220, 45},  
    {"G", "South", 180, 35},  
    {"H", "West", 310, 65}  
};
```

```
In[2]:= Tabular[data]
```

Out[2]=

	1	2	3	4	
	Product	Region	Sales	Profit	
2	A	North	250	50	
3	B	South	150	30	
4	C	East	200	40	
5	D	West	300	60	
6	E	North	270	55	
7	F	East	220	45	
8	G	South	180	35	
9	H	West	310	65	

```
In[3]:= totalSales = Total[Rest[data][All, 3]]  
totalProfit = Total[Rest[data][All, 4]]
```

Out[3]=

1880

Out[4]=

380

```
In[5]:= avgSalesByRegion = GroupBy[Rest[data], #[[2]] & → Mean[#[[3]] &]]
```

```
Out[5]= <| North → {Mean[#[[3]] &][{A, North, 250, 50}], Mean[#[[3]] &][{E, North, 270, 55}]} ,  
        South → {Mean[#[[3]] &][{B, South, 150, 30}], Mean[#[[3]] &][{G, South, 180, 35}]} ,  
        East → {Mean[#[[3]] &][{C, East, 200, 40}], Mean[#[[3]] &][{F, East, 220, 45}]} ,  
        West → {Mean[#[[3]] &][{D, West, 300, 60}], Mean[#[[3]] &][{H, West, 310, 65}]} |>
```

```
In[6]:= highProfitProducts = Select[Rest[data], #[[4]] > 50 &];
Tabular[Prepend[highProfitProducts, First[data]]]
```

Out[6]=

	1	2	3	4
1	Product	Region	Sales	Profit
2	D	West	300	60
3	E	North	270	55
4	H	West	310	65

```
In[7]:= products = Rest[data][[All, 1]];
sales = Rest[data][[All, 3]];
BarChart[sales, ChartLabels → products, ChartStyle → LightBlue,
AxesLabel → {"Product", "Sales"}, PlotLabel → "Sales by Product"]
```

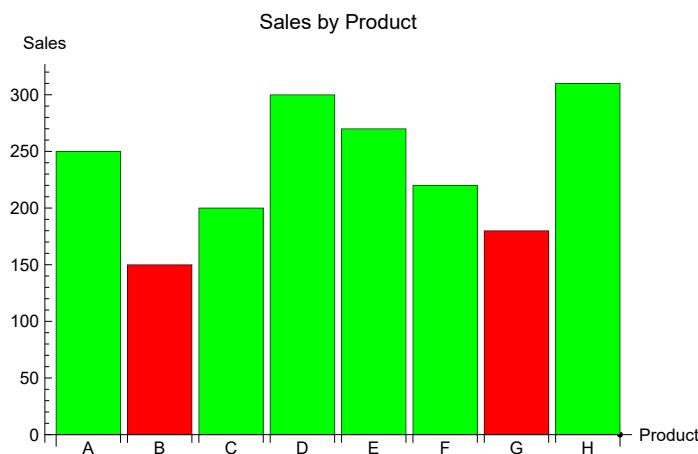
Out[7]=



In[6]:=

```
BarChart[sales, ChartLabels -> products, ChartStyle -> (If[# < 200, Red, Green] & /@ sales),
AxesLabel -> {"Product", "Sales"}, PlotLabel -> "Sales by Product"]
```

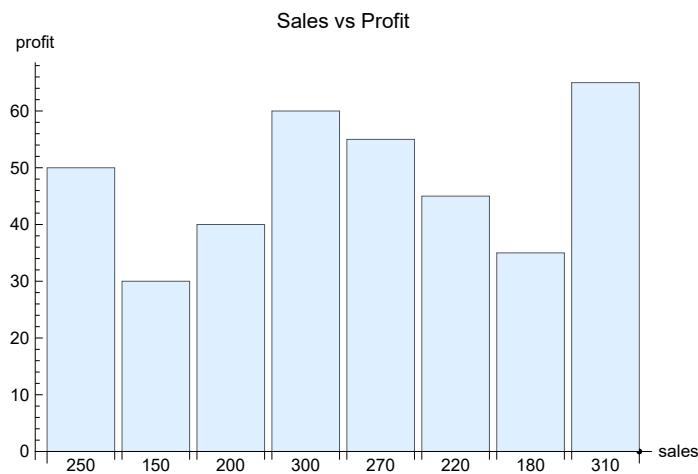
Out[6]=



In[7]:=

```
sales = Rest[data][All, 3];
profit = Rest[data][All, 4];
BarChart[profit, ChartLabels -> sales, ChartStyle -> LightBlue,
AxesLabel -> {"sales", "profit"}, PlotLabel -> "Sales vs Profit"]
```

Out[7]=



In[6]:=

```
BarChart[profit, ChartLabels → sales, ChartStyle → (If[# > 50, Green, Red] & /@ profit),
AxesLabel → {"sales", "profit"}, PlotLabel → "Sales vs Profit"]
```

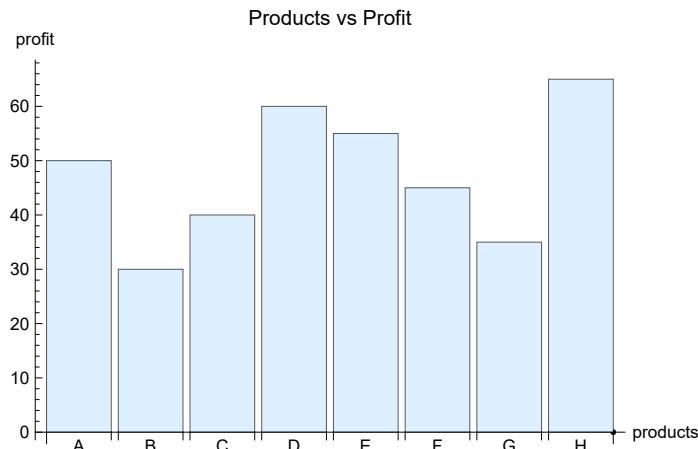
Out[6]=



In[7]:=

```
products = Rest[data][[All, 1]];
profit = Rest[data][[All, 4]];
BarChart[profit, ChartLabels → products, ChartStyle → LightBlue,
AxesLabel → {"products", "profit"}, PlotLabel → "Products vs Profit"]
```

Out[7]=



```
In[6]:= BarChart[profit, ChartLabels → products, ChartStyle → (If[# > 50, Green, Red] & /@ profit),  
AxesLabel → {"products", "profit"}, PlotLabel → "Product vs Profit"]
```

```
Out[6]=
```

