EXP NO:6	DATA VISUALIZATION USING R
DATE:	

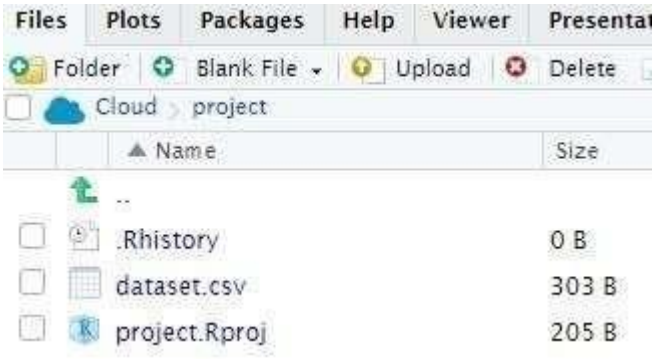
AIM:

To perform data visualization using r programming.

DATA VISUALIZATION:

Data visualization is the graphical representation of information and data. By using visual elements like charts, graphs, and maps, data visualization tools provide an accessible way to see and understand trends, outliers, and patterns in data.

UPLOADING THE DATASET:



> dataset

OUTPUT:

dataset.csv × dataset ×

Filter

	country	item_purchased	age	salary
1	pakistan	no	46	35000
2	india	yes	29	40000
3	india	yes	19	50000
4	germany	no	33	20000
5	america	no	22	60000
6	canada	yes	30	58000
7	britain	no	42	52000
8	india	no	30	50000
9	france	yes	28	83000
10	italy	yes	35	45000
11	germany	no	32	24000
12	britain	yes	30	60000
13	india	no	40	70000

INSTALLING THE PACKAGES:

```
> library(tidyverse)
── Attaching packages ─────────────────────────────────── tidyverse 1.3.2 -
✓ tibble  3.1.8      ✓ dplyr   1.0.10
✓ tidyr   1.2.1      ✓ stringr 1.4.1
✓ purrr   0.3.4      ✓ forcats 0.5.2
```

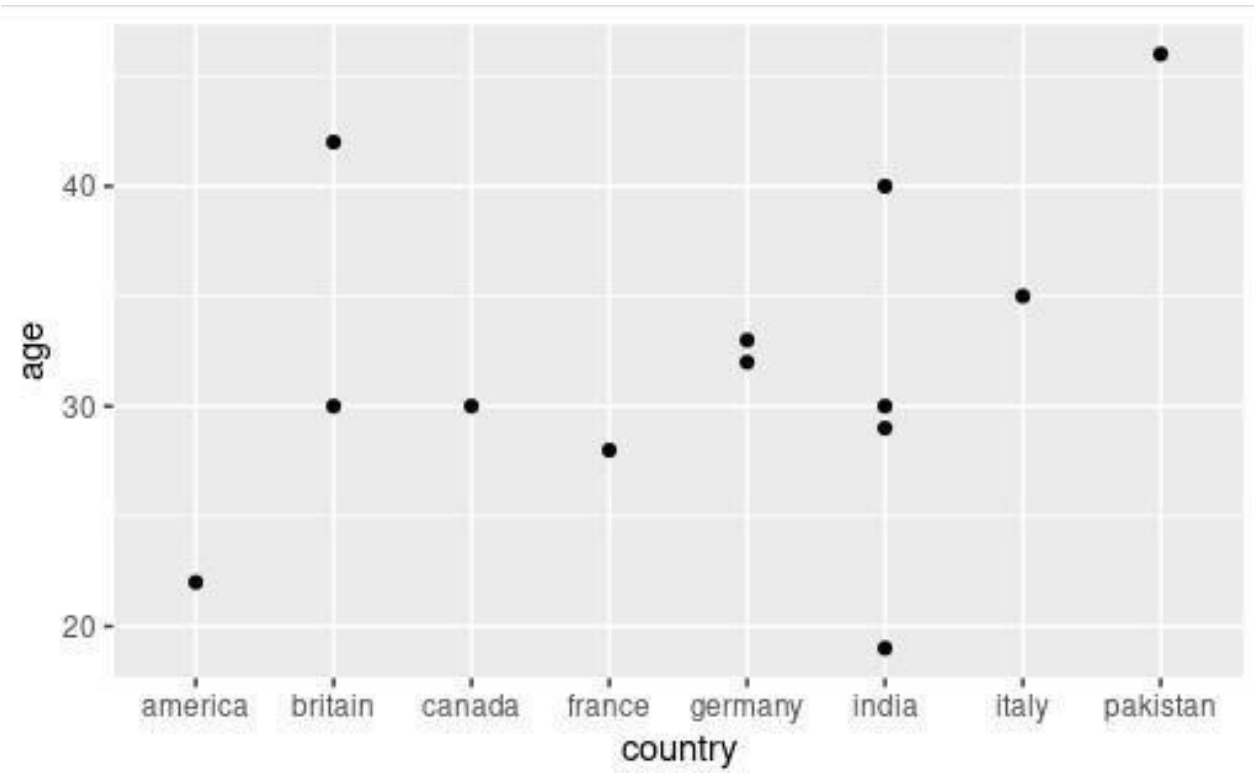
VISUALIZING THE DATASET USING DIFFERENT PLOTS:

SCATTER PLOT:

FOR AGE AND COUNTRY

```
> ggplot(data = dataset) +
+     geom_point(mapping = aes(x = country, y = age))
```

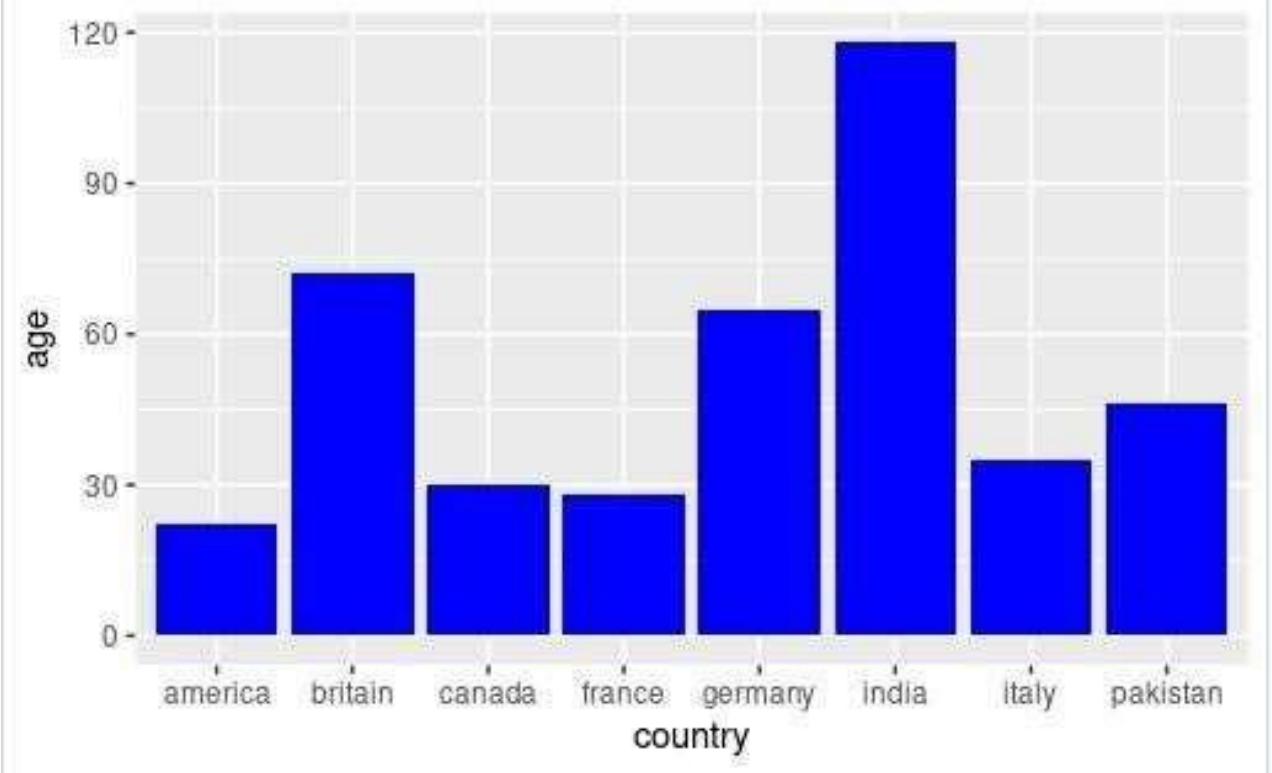
OUTPUT:



BAR GRAPH:

FOR COUNTRY AND AGE.

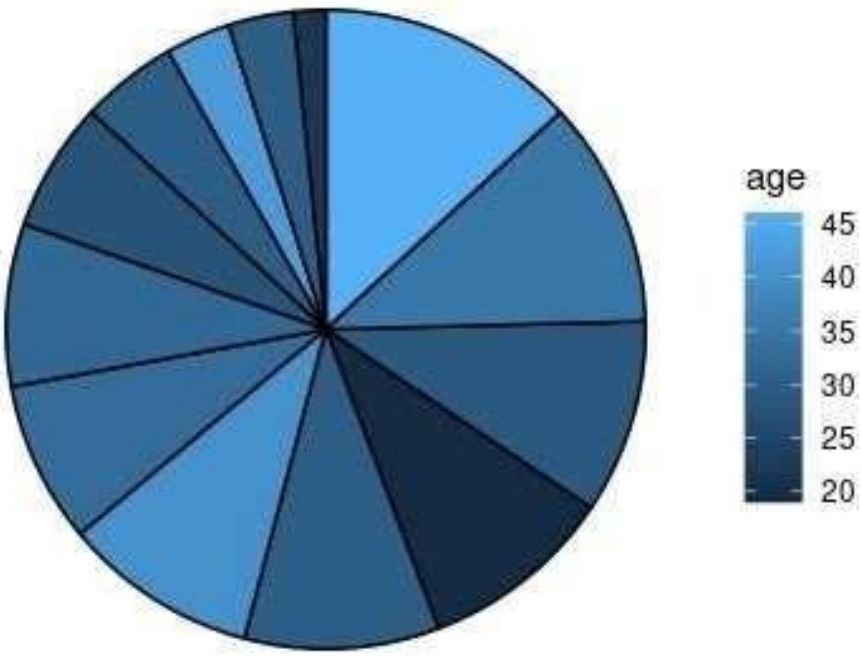
```
> ggplot(dataset, aes(country, age)) +
+     geom_bar(stat = "identity", fill = "blue")
```



PIE CHART:

FOR COUNTRY FILLING WITH AGE.

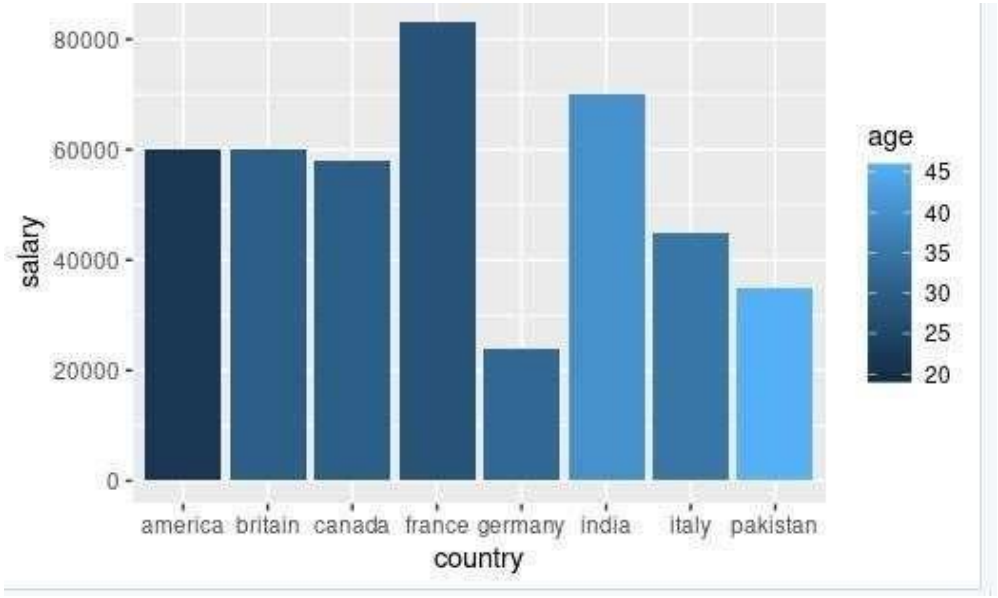
```
ggplot(dataset, aes(x="", y=country, fill=age)) + +
geom_bar(stat="identity", width=1, color="black") +
+     coord_polar("y", start=0) +
+     theme_void()
```



BARGRAPH:

FOR AGE AND COUNTRY:

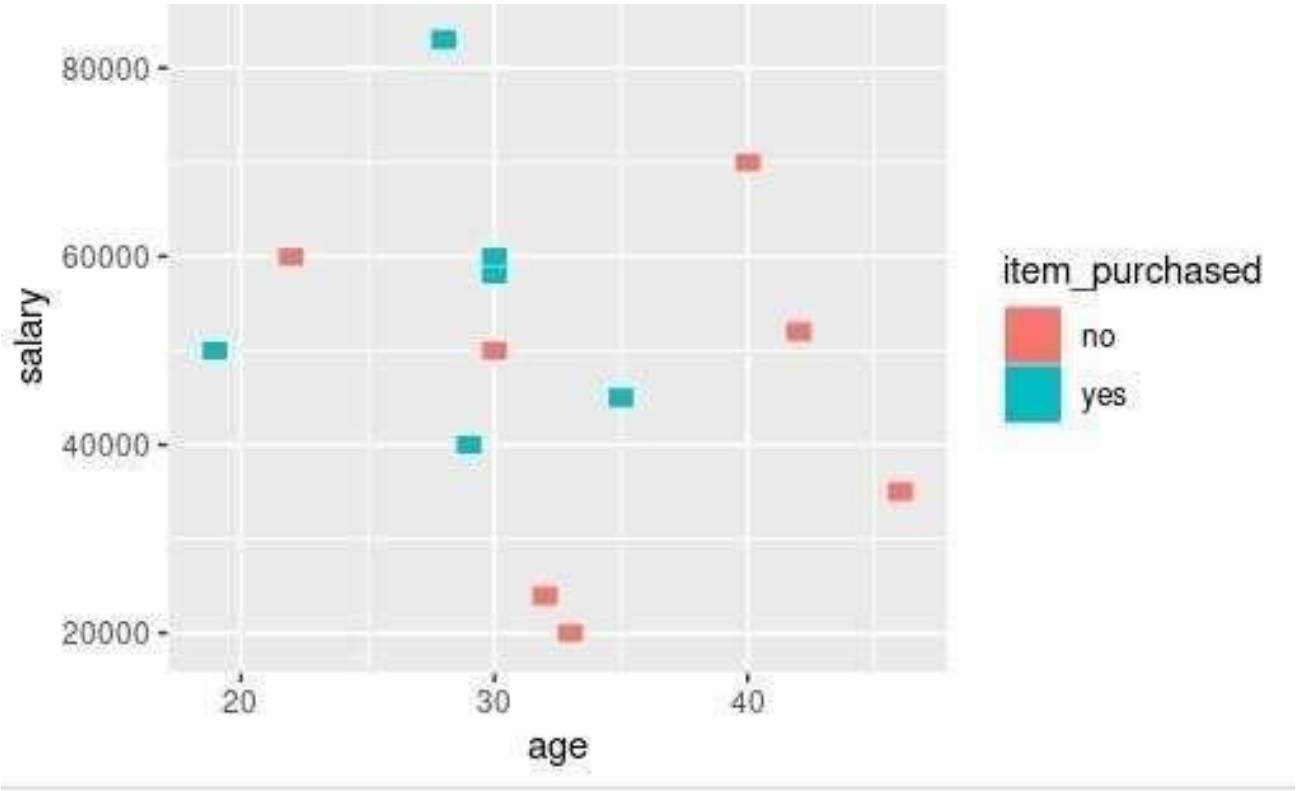
```
> ggplot(dataset, aes(country, salary, fill = age)) +
+     geom_bar(stat = "identity", aes(fill = age), position = "dodge")
```



HEAT MAP:

FOR AGE AND SALARY:

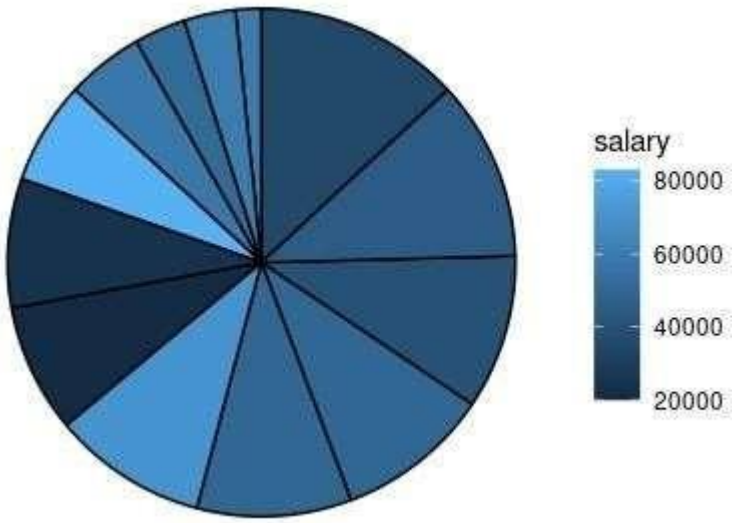
```
> ggplot(dataset, aes(age, salary, fill = item_purchased)) +
+     geom_tile(color = "white")
```



PIE CHART:

FOR COUNTRY FILLING WITH SALARY.

```
ggplot(dataset, aes(x="", y=country, fill=salary)) + +
geom_bar(stat="identity", width=1, color="black") +
+        coord_polar("y", start=0) +
+         theme_void()
```



RESULT:

Thus the data has been successfully visualized using R programming