**Assignment 4.1**

df1 = data.frame(CustId = c(1:6), Product = c(rep("TV", 3), rep("Radio", 3)))

df2 = data.frame(CustId = c(2, 4, 6), State = c(rep("Texas", 2), rep("NYC", 1)))

df1 #left table

df2 #right table

For the above given data frames and tables perform the following operations:

1. Return only the rows in which the left table have match

2. Return all rows from both tables; join records from the left which have matching keys in the right table.

**Ans**

> df1 = data.frame(CustId = c(1:6), Product = c(rep("TV", 3), rep("Radio", 3)))

> df2 = data.frame(CustId = c(2, 4, 6), State = c(rep("Texas", 2), rep("NYC", 1)))

> df1 #left table

CustId Product

1 1 TV

2 2 TV

3 3 TV

4 4 Radio

5 5 Radio

6 6 Radio

> df2 #right table

CustId State

1 2 Texas

2 4 Texas

3 6 NYC

> merge(x=df1,y=df2,by="CustId", all=TRUE)

CustId Product State

1 1 TV <NA>

2 2 TV Texas

3 3 TV <NA>

4 4 Radio Texas

5 5 Radio <NA>

6 6 Radio NYC