

```
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:
- Return only the rows in which the left table have match.
 - Returns all rows from both tables, join records from the left which have matching keys in the right table.
 - Return all rows from the left table, and any rows with matching keys from the right table.
 - Return all rows from the right table, and any rows with matching keys from the left table.

2. Perform the below operations on above given data frames and tables:
- Return a long format of the datasets without matching key.
 - Keep only observations in df1 that match in df2.
 - Drop all observations in df1 that match in df2.

```
> Left <- merge(df1, df2, by.x = "CustId")

CustId Product State
1 2 TV Texas
2 4 Radio Texas
3 6 Radio NYC
```

```
Right <- merge(df1, df2, by = "CustId", all = TRUE)

> Right
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
```