

In [48]:

```
df=data.frame(emp_id=c(1,2,3),emp_name=c("sivane","ruthvika","asrita"),emp_date=as.Date(
```

In [2]:

```
df
```

emp_id	emp_name	emp_date	gender
1	sivane	0009-11-20	f
2	ruthvika	0003-06-20	f
3	asrita	0001-09-20	f

In [3]:

```
#sorting  
df[with(df,order(c(emp_name)))]
```

emp_date	emp_name	emp_id
0009-11-20	sivane	1
0003-06-20	ruthvika	2
0001-09-20	asrita	3

In [47]:

```
#adding new column  
df$dept=c("cse","phy","maths")
```

In [46]:

```
#adding new row-rbind()  
new_df = data.frame(emp_id=c(1,2,3),emp_name=c("sivane","ruthvika","asrita"),emp_date=as  
new_df
```

emp_id	emp_name	emp_date	gender	dept
1	sivane	0009-11-20	f	cse
2	ruthvika	0003-06-20	f	phy
3	asrita	0001-09-20	f	maths

In [49]:



```
rbind(df,new_df)#joining tables by row
```

Error in rbind(deparse.level, ...): numbers of columns of arguments do not match
Traceback:

```
1. rbind(df, new_df)
2. rbind(deparse.level, ...)
3. stop("numbers of columns of arguments do not match")
```

In [24]:



```
df
```

emp_id	emp_name	emp_date	gender	dept
1	sivane	0009-11-20	f	cse
2	ruthvika	0003-06-20	f	phy
3	asrita	0001-09-20	f	maths

In [25]:



```
new_df
```

emp_id	emp_name	emp_date	gender
1	sivane	0009-11-20	f
2	ruthvika	0003-06-20	f
3	asrita	0001-09-20	f

In [40]:



```
df
```

emp_date
0009-11-20
0003-06-20
0001-09-20

In [53]:



```
df1=data.frame(studentId=c(101,102,103,104,105,106),product=c("hindi","eng","maths","sci
```

In [57]:



```
df2=data.frame(studentId=c(102,104,106,107,108),state=c("mangalore","mysore","pune","delhi"))
```

In [56]:



```
df1  
df2
```

studentId	product
101	hindi
102	eng
103	maths
104	science
105	politicalscience
106	physics

studentId	state
102	mangalore
104	mysore
106	pune
107	deraden
108	delhi

In [64]:



```
#natural join  
df=merge(x=df1,y=df2,by="studentId",all=FALSE)  
#LEFT join  
new3=merge(x=df1,y=df2,by="studentId",all.x=TRUE)  
#right joint  
new4=merge(x=df1,y=df2,by="studentId",all.y=TRUE)  
#full outerjoin  
new5=merge(x=df1,y=df2,by="studentId",all=TRUE)
```

In [65]:



```
df
new3
new4
new5
```

studentId	product	state
102	eng	mangalore
104	science	mysore
106	physics	pune

studentId	product	state
101	hindi	NA
102	eng	mangalore
103	maths	NA
104	science	mysore
105	politicalscience	NA
106	physics	pune

studentId	product	state
102	eng	mangalore
104	science	mysore
106	physics	pune
107	NA	dehradun
108	NA	delhi

studentId	product	state
101	hindi	NA
102	eng	mangalore
103	maths	NA
104	science	mysore
105	politicalscience	NA
106	physics	pune
107	NA	dehradun
108	NA	delhi

In [66]:



```
a=10
if(a%2==0)
{
    print("even")
}else{
    print("odd")
}
```

[1] "even"

In [67]:



```
l=list(1,2,3,4,5)
for(x in l){
    if(x==2)
    {
        break
    }
print(x)
}
```

[1] 1

In [68]:



```
l=list(1,2,3,4,5)
for(x in l){
    if(x==2)
    {
        next
    }
print(x)
}
```

[1] 1

[1] 3

[1] 4

[1] 5

In [72]:



```
#armstrong number
#ex:153
#1^3+5^3+3^3=153
#1+125+27=153
num=153
sum=0
temp=num
while(num>0)
{
    digit=num%10
    sum=sum+(digit^3)
    num=floor(num/10)
}
print(paste("the sum is ",sum))
print(paste("the num value is",num))
if(temp==sum)
{
    print("it is armstrong number")
}else{
    print("it is not armstrong number")
}
```

```
[1] "the sum is  153"
[1] "the num value is 0"
[1] "it is armstrong number"
```

In [73]:



```
#sum
num=12
sum=0
temp=num
while(num>0)
{
    digit=num%10
    sum=sum+digit
    num=floor(num/10)
}
print(paste("the sum is ",sum))
```

```
[1] "the sum is  3"
```

In [74]:



```
#reverse
rev=0
num=15
temp=num
while(num>0)
{digit=num%10
rev=rev*10+digit
num=floor(num/10)

}
print(paste("the rev is ",rev))
```

```
[1] "the rev is  51"
```

In [75]:



```
#palindrome
num=242
rev=0
temp=num
while(num>0)
{
digit=num%10
rev=rev*10+digit
num=floor(num/10)
}
print(paste("the sum is ",sum))
print(paste("the num value is",num))
if(temp==sum)
{
print("it is palindrome")
}else{
print("it is not palindrome")
}
```

```
[1] "the sum is  3"
```

```
[1] "the num value is 0"
```

```
[1] "it is not palindrome"
```

In []:

