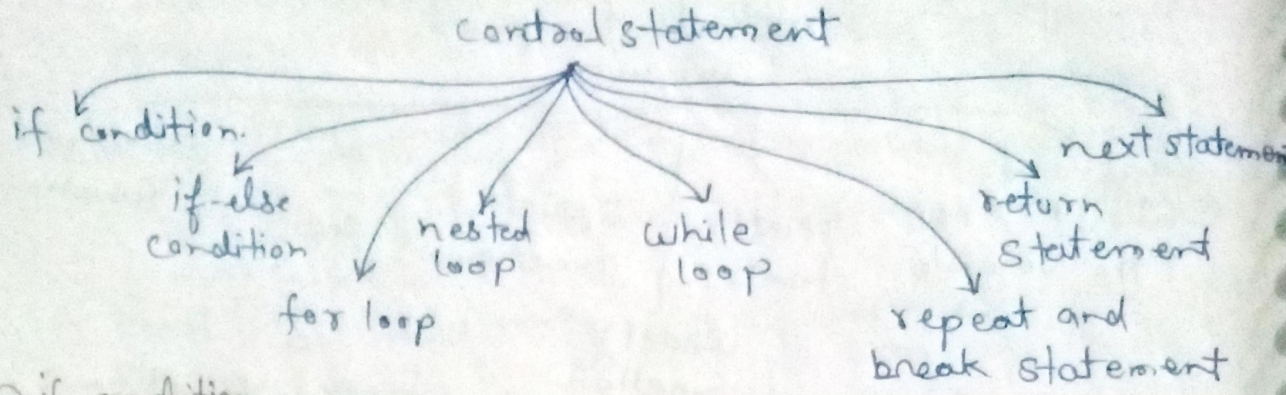
CONTROL STATEMENT IN R



① if condition

Syntax:

```
if (expression){
    statement
    ----
    ------
}
```

② if-else condition.

Syntax:

```
if (expression){
    statement
    ----
}else{
    statement
    ------
}
```

③ for Loop

Syntax:

```
for (value in vector){
    statements
    ----
    ------
}
```

④ while loop

Syntax:

```
while (expression){
    statement
    ----
    ------
}
```

⑤ repeat loop and break statement

repeat is a loop which can be iterated many number of times but there is no exit condition to come out from the loop. So, break statement is used to exit from the loop. break statement can be used in any type of loop to exit from the loop.

Syntax:

```
repeat{
    statements
    ------
    ------
    if (expression){
        break
    }
}
```

(6.) return statement:

return statement is used to return the result of an executed function and returns control to the calling function.

Syntax:

return (expression)

(7.) next statement:

next statement is used to skip the current iteration without executing the further statements and ~~condit~~ continues the next iteration cycle without terminating the loop.

example:

```
x ← 1:10
for (i in x){
    if (i%%2 != 0){
        next
    }
    print(i)
}
```

(8.) Switch case statement:

switch case statements are a substitute for long if statements that compare a variable to several integral values. Switch case in R is a multiway branch statement. It allow a variable to be tested for equality against a list of values. Switch statement follows the approach of mapping and searching over a list of values. if there is more than one match for specific value, then the switch statement will return the first match found of the value matched with the expression.

Syntax:

switch(expression, case1, case2, case3 ----)

Here, the expression is matched with the list of values and the corresponding value is returned.

- An expression type with character string always matched to the listed cases.
- An expression which is not a character string then this exp. is coerced to integer.
- For multiple matches, the first match element will be used.
- No default argument case is available there in R switch case.
- An unnamed case can be used, if there is no matched case

example:

```
val1 = 6
val2 = 7
val3 = "s"
result = switch(val3,
    "a" = cat("Additions=", val1+val2),
    "d" = cat("Subtraction=", val1- val2),
    "r" = cat("Division=", val1/ val2),
    "s" = cat("Multiplication.=", val1 * val2),
    "m" = cat("Modulus=", val1%%val2),
    "p" = cat("Power=", val1 ^ val2))
print(result)
```

output:

```
multiplication = 42 NULL
```

* A programming language doesn't support goto statement concept.