Conditional Execution in R
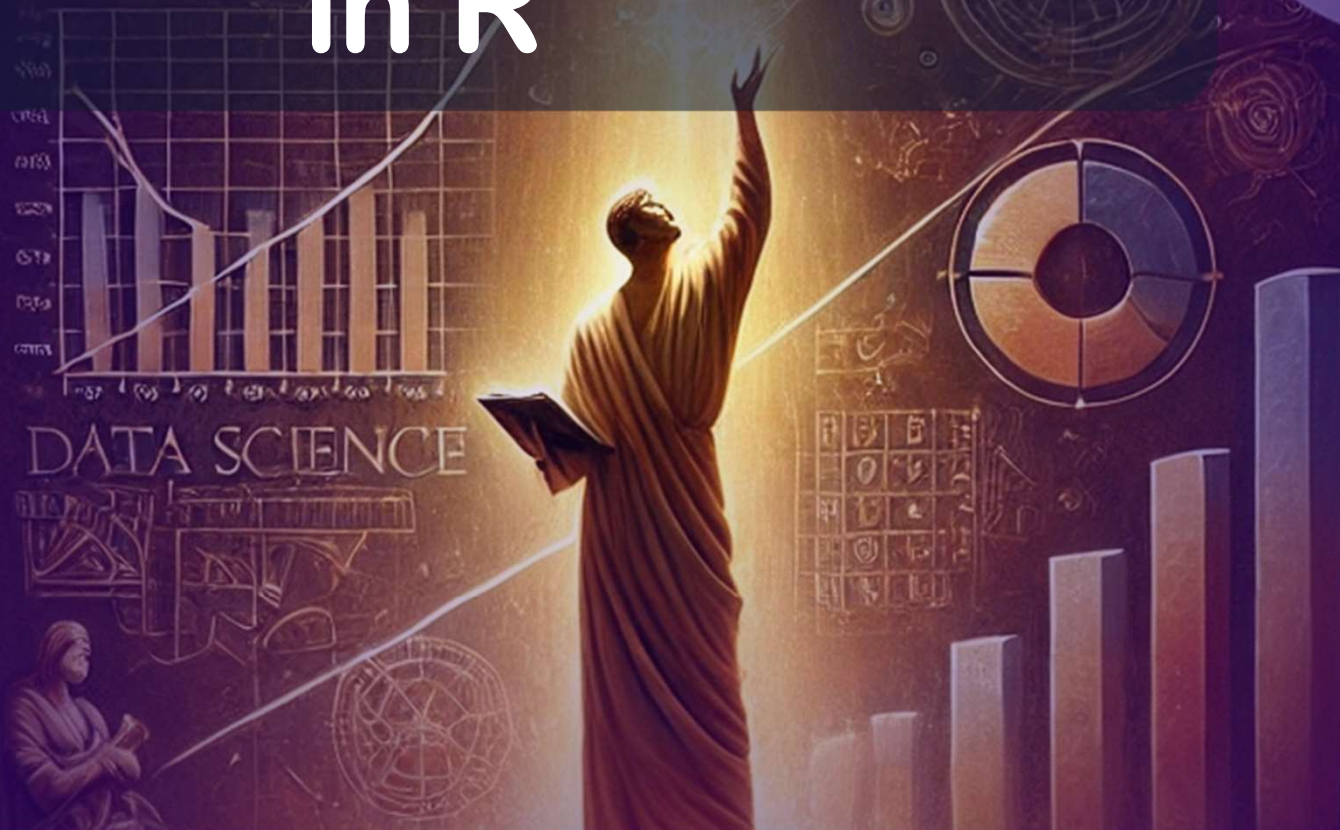
Lesson Goal

- Understand and apply different conditional execution statements to control the flow of your scripts and data transformations.

Conditional Execution

- This allows you to run different blocks of code depending on logical statements or tests.

- The conditional execution constructs in R include:

```
if, if...else, else if, ifelse, switch
```

Conditional Execution - if

- The syntax for **if** condition is:

```
if(condition){execute if condition is TRUE}


if(condition){
    execute if condition is TRUE
}
```

Conditional Execution – if…else

- The syntax for `if…else` condition is:

```
if(condition){
    execute if condition is TRUE
} else {
    execute if condition is FALSE
}
```
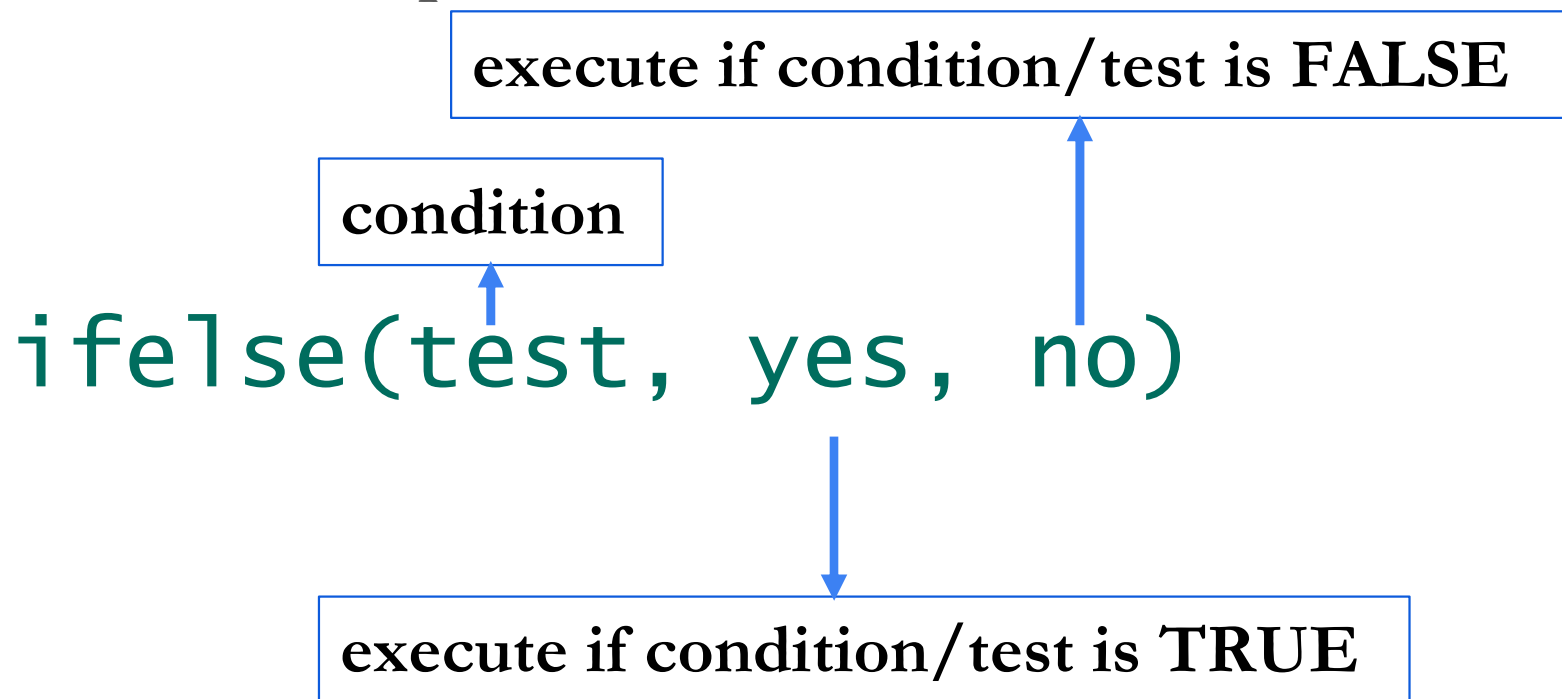
Conditional Execution – Multiple Conditions (else if)

- The syntax for else if condition is:

```
if(condition_1){
    execute if condition_1 is TRUE
} else if(condition_2){
    execute if condition_2 is TRUE
} else if(condition_3){
    execute if condition_3 is TRUE
} else {
    execute if all conditions above are FALSE
}
```

Conditional Execution on Vectors – ifelse

- Apply a test or condition to each element of a vector and return a vector of outputs.

execute if condition/test is **FALSE**

condition

```
ifelse(test, yes, no)
```

execute if condition/test is **TRUE**

Conditional Execution – switch

- Evaluates a single **expression** and allows you to choose **one action or value from a set of options** based on that **expression**.

- It can be used in two modes:
    - **Character (named) switch** – match the result of an expression against named arguments.
    - **Numeric (positional) switch**: use a numeric index to pick the nth argument.

Conditional Execution – switch

- Evaluates a single **expression** and allows you to choose **one action or value from a set of options** based on that **expression**.

list of alternatives

`switch(EXPR, …)`

expression