test command

- test command is used to validate/judge conditions
- What is a condition ?
  - Example: -e file
- Syntax:
  - test condition or [condition] or [[condition]]
    - [[ ]] is the latest and advanced usage of test command
  - test -e file
    - We can combine test commands with logical AND , OR operators using this concept
    - If file exist then test command return or exits with status as zero(true) else non-zero(false)

- We have two types of operators to create conditions
  - File Test Operators
  - Comparison Operators

File Test Operators to create conditions

- test -f file or [[-f file]] → To validate file or path is a file or not
- test –d file or [[-d file]] → To validate file or path is a directory or not
- test -e file or [[-e file]] → To validate file exist or not
- test -s file or [[-s file]] → To validate file size is greater than zero or not
- test -r file or [[-r file]] → To validate file is having read permissions for the current user
- test -w file or [[-w file]] → To validate file is having write permissions for the current user
- test -x file or [[-x file]] → To validate file is having execution permissions for the current user

Comparison Operators to create conditions

- **String Comparison:**
  - test -z string or [[-z string]] → To validate string is null or not
  - test -n string or [[-n string]] → To validate string is not null or not
  - test str1 == str2 or [[str1 == str2]] → To validate two strings are equal or not
    - test str1 = str2 or [[str1 = str2]]
  - test str1 != str2 or [[str1 != str2]] → To validate two strings are not equal or not

- **Integer Numbers Comparison:**
  - test num1 –eq num2 or [[num1 –eq num2]] → To validate two numbers or equal or not
  - test num1 –ne num2 or [[num1 –ne num2]] → To validate two numbers or not equal or not
  - test num1 –lt num2 or [[num1 –lt num2]] → To validate num1 is less than num2 or not
  - test num1 –le num2 or [[num1 –le num2]] → To validate num1 is less than or equal to num2
  - test num1 –gt num2 or [[num1 –gt num2]] → To validate num1 is greater than num2 or not
  - test num1 –ge num2 or [[num1 –ge num2]] → To validate num1 is greater than or equal to num2