Working with Strings

- Whatever read from application will be in string format
- We need to analyze the strings for verification purpose

- Below things we do on strings
  - Compare Strings
  - Verify Sub String Existence
  - Extract sub string
  - Verify Data Standards
- Available methods For Strings
- For verifications
  - compare strings
    - equals, equalsignorecase, compareto, comparetoignorecase
  - length of string
    - length
  - verifying sub string
    - indexof, contains
  - getting sub string
    - substring
- For implementing logics
  - Split
  - concatenation
  - reverse of string
  - convert to case
  - trimming the space
  - replace string
- For Verify Data Standards we use regular expressions

Regular Expressions are used for

- Testing Data Standards
- Searching for String
- Replace String

When you search for a string using string related methods it will search for only that string. Regular expressions are like strings which returns multiple search phrase using pattern.

We should know how to prepare regular expression pattern

ab. = any one character = ab1/abc/abz

ab* = preceding character any number of times = a/ab/abbbbbbbbb

ab.* = abkdjfkljdslflsflsl : after ab anything

ab[xyz] = abx/aby/abz

ab[a-z] = aba,abb,abc....abz

ab[^a-z] # aba,abb,abc....abz

[a-z]{2} = n number of times = ab/az/bb/df

[a-z]{2,5} = minimum n , maximum m number of times = book/zoo/hi/selen

[a-z]{2,} = minimum n number of times = book/zoo/hi/selen,skjfhkjshdfhewhfkjg3897489389

| : or clause

() : grouping

\ : escape : to treat a regular expression character as normal character

Regular Expressions Help URL: **https://docs.oracle.com/javase/tutorial/essential/regex/**

Regular Expression for PAN:

5c4n1c

[A-Z]{5}[0-9]{4}[A-Z]

Regular Expression for Time:

00:00:00

23:59:59

([0-2][0-3]|[0-1][4-9]):([0-5][0-9]):([0-5][0-9])

Using regular expression in programs:

We can use string.matches(pattern) to verify the standard of data

We can also use pattern class to verify standards

Pattern.matches("pattern", String);