# 

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# 

# Regex:

Regular expressions in java is shortly called as regex.Regex is often used in strings to perform matching,searching operations.It is also widely used to validate password.

Reference : <https://www.rexegg.com/>

Pattern Class and Matcher class: Pattern class is used to define the regex and Matcher contains matcher( ) method which is used match the regex pattern against the string.

## Quantifiers:

* \* indicates 0 or more.
* + indicates 1 or more.
* ? indicates 0 or 1.

## Group and back reference:

the regex \b(\w+)\b\s+\1\b matches repeated words, such as regex regex, because the parentheses in (\w+) capture a word to Group 1 then the back-reference \1 tells the engine to match the characters that were captured by Group 1.

# Program 1

HTML validator using regex

Regex used for validating html:<.\*?>([^<]+)</.\*?>.

If the string does not match then print invalid else print valid.

.\*---Because of the greedy quantifier, the dot-star matches all the characters to the very end of the string.

.\*?--- guarantees that the quantified dot only matches as many characters as needed for the rest of the pattern to succeed.

Reference:

<https://www.rexegg.com/regex-quantifiers.html>

# Program 2

Given an amount.Display ​ the amount in Indian,German,US,France and Italian currency format.

Java provides inbuilt class ,so make use of NumberFormat class to display the corresponding currency.

//Displays the currency fomat for US

NumberFormat num\_frmt;

num\_frmt = NumberFormat.getCurrencyInstance(Locale.US);

# Program 3

Write a function to get the user’s date of birth and print the day of the week.

Get date of birth and display the corresponding day.

//use the below logic to obtain the day which return integer

static int dayofweekfunc(int d, int m, int y)

{

int t[] = { 0, 3, 2, 5, 0, 3, 5, 1, 4, 6, 2, 4 };

y -= (m < 3) ? 1 : 0;

return ( y + y/4 - y/100 + y/400 + t[m-1] + d) % 7;

}

//to convert the integer to day.

DayOfWeek dayofweek = DayOfWeek.of(dow);

# Program 4

Change the above function to print the date in the following format (Current Date: Wed

2015.10.07 at 05:48:19 AM UTC)

Make use of inbuilt DateTimeFormatter class to display the above format.