What are Regular Expressions?

A Regular Expression is a pattern of characters, if a string of characters matches this pattern then we say string is valid based on that regular expression.

Following is the regular expression for a valid email address.

^[a-zA-Z0-9_+&*-]+(?:\\a-zA-Z0-9_+&*-]+)*@(?:[a-zA-Z0-9-]+\\.)+[a-zA-Z]{2,7}$

Following is the valid regular expression for a valid US Zip Code

\d{5}-\d{4}|\d{5}|[A-Z]\d[A-Z] \d[A-Z]\d$

Following is the valid regular Expression for a valid Username

^[A-Za-z]\\w{5, 29}$

Java Code to Check for Valid Email Address based on Regular Expression

```
import java.util.regex.Matcher;
import java.util.regex.Pattern;
import java.util.*;
public class JavaApplication5 {
public static boolean isValid(String email)
        {
                String emailRegex = "^[a-zA-Z0-9_+&*-]+(?:\\a-zA-Z0-9_+&*-]+)*@(?:[a-zA-Z0-
9-]+\\.)+[a-zA-Z]{2,7}$";

                Pattern pat = Pattern.compile(emailRegex);
                if (email == null)
                        return false;
                return pat.matcher(email).matches();
        }
        public static void main(String[] args)
        {
                ArrayList<String> address = new ArrayList<>();

                address.add("review-team@cppcourses.com");
                address.add("writing.cppcourses.com");


        for(String i : address){
                        if (isValid(i))
                                System.out.println(i + " - Yes");
                        else
                                System.out.println(i + " - No");
                }
        }
}
```