**REGEX PREDEFINED CHARACTER CLASSES**

**Predefined Character Class Purpose**

"\\d" "[0-9]" digits 0 through 9

"\\D" "[^0-9]" any character except the digits 0 through 9

"\\s" "[ \\n\\r\\t\\f]" regular space, newline, carriage return, tab, and formfeed

"\\S" "[^\\s]" any character except for a space, newline, carriage return, tab, or formfeed

"\\w" "[a-zA-Z0-9\_]" lowercase a-z, uppercase A-Z, digits 0 through 9, and the underscore

"\\W" "[^\\w]" anything except lowercase a-z, uppercase A-Z, digits 0 through 9, or underscore

**try not to use these next ones -**

"\\h" "[ \\t\\xA0\\u1680\\u180e\\u2000-\\u200a\\u202f\\u205f\\u3000]" (A0=non-breaking space)

"\\H" "[^\\h]"

"\\v" "[\\n\\f\\r\\x85\\x0B\\u2028\\u2029]" (x0B=vertical tab, 85=horizontal ellipsis)

"\\V" "[^\\v]"

***EXAMPLES***

|  |  |
| --- | --- |
| **package** com.Soham;  **import** java.util.regex.\*;  **public class** Main {   **public static void** main(String[] args) {   *displayFind*(**"[0-9]"**,**"107.1.53.254"**);  *displayFind*(**"\\d"**,**"107.1.53.254"**);  *displayFind*(**"[^0-9]"**,**"107.1.53.254"**);  *displayFind*(**"\\D"**,**"107.1.53.254"**);   *displayFind*(**"[ \\n\\r\\t\\f]"**,**"Hello World\n"**);  *displayFind*(**"\\s"**,**"Hello World\n"**);  *displayFind*(**"[^ \\n\\r\\t\\f]"**,**"Hello World\n"**);  *displayFind*(**"\\S"**,**"Hello World\n"**);   *displayFind*(**"[a-zA-Z0-9\_]"**,**"Page\_no: 137"**);  *displayFind*(**"\\w"**,**"Page\_no: 137"**);  *displayFind*(**"[^a-zA-Z0-9\_]"**,**"Page\_no: 137"**);  *displayFind*(**"[\\W]"**,**"Page\_no: 137"**);   }   **public static void** displayFind(String regex, String find\_me){  **boolean** getmatch = **false**;  Pattern p = Pattern.*compile*(regex);  Matcher m = p.matcher(find\_me);   **while** (m.find()){  System.***out***.println(**"Matcher found "** + m.group() + **" at index "** + m.start() + **" for regex "** + regex + **" with "** + find\_me);  getmatch = **true**;  }   **if** (!getmatch){  System.***out***.printf(**"no match for "** + regex + **" on "** + find\_me);  }  System.***out***.println();  } } | **Matcher found 1 at index 0 for regex [0-9] with 107.1.53.254**  **Matcher found 0 at index 1 for regex [0-9] with 107.1.53.254**  **Matcher found 7 at index 2 for regex [0-9] with 107.1.53.254**  **Matcher found 1 at index 4 for regex [0-9] with 107.1.53.254**  **Matcher found 5 at index 6 for regex [0-9] with 107.1.53.254**  **Matcher found 3 at index 7 for regex [0-9] with 107.1.53.254**  **Matcher found 2 at index 9 for regex [0-9] with 107.1.53.254**  **Matcher found 5 at index 10 for regex [0-9] with 107.1.53.254**  **Matcher found 4 at index 11 for regex [0-9] with 107.1.53.254**  **Matcher found 1 at index 0 for regex \d with 107.1.53.254**  **Matcher found 0 at index 1 for regex \d with 107.1.53.254**  **Matcher found 7 at index 2 for regex \d with 107.1.53.254**  **Matcher found 1 at index 4 for regex \d with 107.1.53.254**  **Matcher found 5 at index 6 for regex \d with 107.1.53.254**  **Matcher found 3 at index 7 for regex \d with 107.1.53.254**  **Matcher found 2 at index 9 for regex \d with 107.1.53.254**  **Matcher found 5 at index 10 for regex \d with 107.1.53.254**  **Matcher found 4 at index 11 for regex \d with 107.1.53.254**  **Matcher found . at index 3 for regex [^0-9] with 107.1.53.254**  **Matcher found . at index 5 for regex [^0-9] with 107.1.53.254**  **Matcher found . at index 8 for regex [^0-9] with 107.1.53.254**  **Matcher found . at index 3 for regex \D with 107.1.53.254**  **Matcher found . at index 5 for regex \D with 107.1.53.254**  **Matcher found . at index 8 for regex \D with 107.1.53.254**  **------------------------------------------**  **Matcher found at index 5 for regex [ \n\r\t\f] with Hello World**  **Matcher found**  **at index 11 for regex [ \n\r\t\f] with Hello World**  **Matcher found at index 5 for regex \s with Hello World**  **Matcher found**  **at index 11 for regex \s with Hello World**  **Matcher found H at index 0 for regex [^ \n\r\t\f] with Hello World**  **Matcher found e at index 1 for regex [^ \n\r\t\f] with Hello World**  **Matcher found l at index 2 for regex [^ \n\r\t\f] with Hello World**  **Matcher found l at index 3 for regex [^ \n\r\t\f] with Hello World**  **Matcher found o at index 4 for regex [^ \n\r\t\f] with Hello World**  **Matcher found W at index 6 for regex [^ \n\r\t\f] with Hello World**  **Matcher found o at index 7 for regex [^ \n\r\t\f] with Hello World**  **Matcher found r at index 8 for regex [^ \n\r\t\f] with Hello World**  **Matcher found l at index 9 for regex [^ \n\r\t\f] with Hello World**  **Matcher found d at index 10 for regex [^ \n\r\t\f] with Hello World**  **Matcher found H at index 0 for regex \S with Hello World**  **Matcher found e at index 1 for regex \S with Hello World**  **Matcher found l at index 2 for regex \S with Hello World**  **Matcher found l at index 3 for regex \S with Hello World**  **Matcher found o at index 4 for regex \S with Hello World**  **Matcher found W at index 6 for regex \S with Hello World**  **Matcher found o at index 7 for regex \S with Hello World**  **Matcher found r at index 8 for regex \S with Hello World**  **Matcher found l at index 9 for regex \S with Hello World**  **Matcher found d at index 10 for regex \S with Hello World**  **------------------------------------------**  **Matcher found P at index 0 for regex [a-zA-Z0-9\_] with Page\_no: 137**  **Matcher found a at index 1 for regex [a-zA-Z0-9\_] with Page\_no: 137**  **Matcher found g at index 2 for regex [a-zA-Z0-9\_] with Page\_no: 137**  **Matcher found e at index 3 for regex [a-zA-Z0-9\_] with Page\_no: 137**  **Matcher found \_ at index 4 for regex [a-zA-Z0-9\_] with Page\_no: 137**  **Matcher found n at index 5 for regex [a-zA-Z0-9\_] with Page\_no: 137**  **Matcher found o at index 6 for regex [a-zA-Z0-9\_] with Page\_no: 137**  **Matcher found 1 at index 9 for regex [a-zA-Z0-9\_] with Page\_no: 137**  **Matcher found 3 at index 10 for regex [a-zA-Z0-9\_] with Page\_no: 137**  **Matcher found 7 at index 11 for regex [a-zA-Z0-9\_] with Page\_no: 137**  **Matcher found P at index 0 for regex \w with Page\_no: 137**  **Matcher found a at index 1 for regex \w with Page\_no: 137**  **Matcher found g at index 2 for regex \w with Page\_no: 137**  **Matcher found e at index 3 for regex \w with Page\_no: 137**  **Matcher found \_ at index 4 for regex \w with Page\_no: 137**  **Matcher found n at index 5 for regex \w with Page\_no: 137**  **Matcher found o at index 6 for regex \w with Page\_no: 137**  **Matcher found 1 at index 9 for regex \w with Page\_no: 137**  **Matcher found 3 at index 10 for regex \w with Page\_no: 137**  **Matcher found 7 at index 11 for regex \w with Page\_no: 137**  **Matcher found : at index 7 for regex [^a-zA-Z0-9\_] with Page\_no: 137**  **Matcher found at index 8 for regex [^a-zA-Z0-9\_] with Page\_no: 137**  **Matcher found : at index 7 for regex [\W] with Page\_no: 137**  **Matcher found at index 8 for regex [\W] with Page\_no: 137** |

**Validating Ips : complex regex**

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| --- |
| **package** com.Soham;  **import** java.util.regex.\*;  **public class** Main {   **public static void** main(String[] args) {   *displayFind*(**"(([01]?\\d\\d?|2[0-4]\\d|25[0-5])\\.){3}([01]?\\d\\d?|2[0-4]\\d|25[0-5])"**, **"107.1.53.255"**);  *displayFind*(**"(([01]?\\d\\d?|2[0-4]\\d|25[0-5])\\.){3}([01]?\\d\\d?|2[0-4]\\d|25[0-5])"**, **"0.0.0.0"**);  *displayFind*(**"(([01]?\\d\\d?|2[0-4]\\d|25[0-5])\\.){3}([01]?\\d\\d?|2[0-4]\\d|25[0-5])"**, **"255.255.255.255"**);  *displayFind*(**"(([01]?\\d\\d?|2[0-4]\\d|25[0-5])\\.){3}([01]?\\d\\d?|2[0-4]\\d|25[0-5])"**, **"499.34.82.1007"**);  }   **public static void** displayFind(String regex, String find\_me){  **boolean** getmatch = **false**;  Pattern p = Pattern.*compile*(regex);  Matcher m = p.matcher(find\_me);   **while** (m.find()){  System.***out***.println(**"Matcher found "** + m.group() + **" at index "** + m.start() + **" for regex "** + regex + **" with "** + find\_me);  getmatch = **true**;  }   **if** (!getmatch){  System.***out***.printf(**"no match for "** + regex + **" on "** + find\_me);  }  System.***out***.println();  } } |
| Matcher found 107.1.53.25 at index 0 for regex (([01]?\d\d?|2[0-4]\d|25[0-5])\.){3}([01]?\d\d?|2[0-4]\d|25[0-5]) with 107.1.53.255  Matcher found 0.0.0.0 at index 0 for regex (([01]?\d\d?|2[0-4]\d|25[0-5])\.){3}([01]?\d\d?|2[0-4]\d|25[0-5]) with 0.0.0.0  Matcher found 255.255.255.25 at index 0 for regex (([01]?\d\d?|2[0-4]\d|25[0-5])\.){3}([01]?\d\d?|2[0-4]\d|25[0-5]) with 255.255.255.255  Matcher found 99.34.82.100 at index 1 for regex (([01]?\d\d?|2[0-4]\d|25[0-5])\.){3}([01]?\d\d?|2[0-4]\d|25[0-5]) with 499.34.82.1007 |