**Predefined Character Classes**

Some character classes such as digits, letters, and whitespaces are used so frequently that there are shortcut names for them. The following table lists those predefined character classes:

| **Shortcut** | **What it Does** |
| --- | --- |
| . | Matches any single character except newline \n. |
| \d | matches any digit character. Same as [0-9] |
| \D | Matches any non-digit character. Same as [^0-9] |
| \s | Matches any whitespace character (space, tab, newline or carriage return character). Same as [ \t\n\r] |
| \S | Matches any non-whitespace character. Same as [^ \t\n\r] |
| \w | Matches any word character (definned as a to z, A to Z,0 to 9, and the underscore). Same as [a-zA-Z\_0-9] |
| \W | Matches any non-word character. Same as [^a-zA-Z\_0-9] |

## Repetition Quantifiers

| **RegExp** | **What it Does** |
| --- | --- |
| p+ | Matches one or more occurrences of the letter p. |
| p\* | Matches zero or more occurrences of the letter p. |
| p? | Matches zero or one occurrences of the letter p. |
| p{2} | Matches exactly two occurrences of the letter p. |
| p{2,3} | Matches at least two occurrences of the letter p, but not more than three occurrences. |
| p{2,} | Matches two or more occurrences of the letter p. |
| p{,3} | Matches at most three occurrences of the letter p |