1.单个字符

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| --- | --- | --- |
| 使用 | 匹配结果 | 示例 |
| a | 匹配字母a | 输入a，得到所有含字母a的单词；  输入abc,得到所有含abc的单词，例如abcoulomb、dabchick等。 |
| [set] | 在该集合中的每个字符都可以匹配 | 输入[ace],得到所有含a的单词、所有含c的单词、所有含e的单词；  输入ck[ace]s，得到 |
| [^set] | 在该集合中的每个其他字符都可以匹配 | 输入[^bdf]，得到 |
| [a–z] | 在a-z范围内的每个字符都可以匹配 |  |
| [^b–f] | 不在a-z范围内的每个其他字符都可以匹配 |  |
| . | Any except \n (new line) |  |
|  |  | |

quantifiers

|  |  |  |
| --- | --- | --- |
| Greedy | Lazy | Matches |
| \* | \*? | 0 or more times |
| + | +? | 1 or more times |
| ? | ?? | 0 or 1 time |
| {n} | {n}? | Exactly n times |
| {n,} | {n,}? | At least n times |
| {n,m} | {n,m}? | From n to m times |

anchors

|  |  |
| --- | --- |
| Use | To specify position |
| ^ | At start of string or line |
| \A | At start of string |
| \z | At end of string |
| \Z | At end (or before \n at end) of string |
| $ | At end (or before \n at end) of string or line |
| \G | Where previous match ended |
| \b | On word boundary |
| \B | Not on word boundary |

groups

|  |  |
| --- | --- |
| Use | To define |
| (exp) | Indexed group |
| (?<name>exp) | Named group |
| (?<name1-name2>exp) | Balancing group |
| (?:exp) | Noncapturing group |
| (?=exp) | Zero-width positive lookahead |
| (?!exp) | Zero-width negative lookahead |
| (?<=exp) | Zero-width positive lookbehind |
| (?<!exp) | Zero-width negative lookbehind |
| (?>exp) | Non-backtracking (greedy) |

inline options

|  |  |
| --- | --- |
| Option | Effect on match |
| n | Explicit (named) |
| x | Ignore white space |

|  |  |
| --- | --- |
| Use | To |
| (?imnsx-imnsx) | Set or disable the specified options |
| (?imnsx-imnsx:exp) | Set or disable the specified options within the expression |

backreferences

|  |  |
| --- | --- |
| Use | To match |
| \n | Indexed group |
| \k<name> | Named group |

alternation

|  |  |
| --- | --- |
| Use | To match |
| a |b | Either a or b |
| (?(exp)  yes | no) | yes if exp is matched no if exp isn't matched |
| (?(name)  yes | no) | yes if name is matched no if name isn't matched |