meta characters:  
^ - start of regex

$ - end of regex

. - any character

character classes:

[a-z] - lowercase characters

[A-Z] - uppercase characters

character classes

\d - matches the digits

\D -matches any non digits

whitespace characters

\s - matches any whitespaces

\S - matches any non-whitespace characters

Quantifiers : specify how many times characters can occur

+ - one or more

\* - Zero or more

{1,3} - between one and three times

escape characters:

\. - matches a literal dot

\$ - matches a dollar sign

\^ - matches a caret sign

Email validation:

[A-Za-z0-9]+(?:[.%\_+][A-Za-z0-9])\*@[A-Za-z0-9]{3,}\.[A-Za-z]{2,}