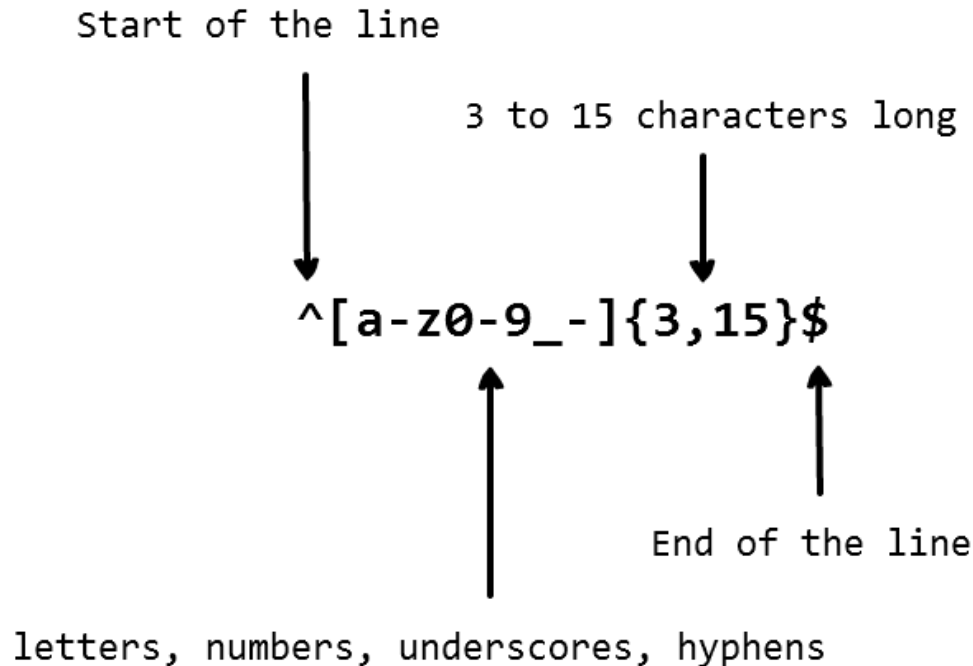


Regular Expressions in Python

- Regular Expression or Regex:
 - It's a string pattern **written in a compact syntax, that allows us to quickly check whether a given string matches or contains a given pattern.**
 - It is an *easy* way to define a pattern of characters. Regex is mostly **used in pattern identification, text mining, or input validation.**
 - Regular expressions (regex or regexp) are extremely useful in **extracting information from any text** by searching for one or more matches of a specific search pattern.
 - **The Python "re" module provides regular expression support.**

Regular Expressions in Python

- Imagine you are writing an application and you want to set the rules for when a user chooses their username. We want to **allow the username to contain letters, numbers, underscores and hyphens**. We also want **to limit the number of characters in username** so it does not look ugly. We use the following regular expression to validate a username:



Specify Pattern Using RegEx

- To specify regular expressions, **metacharacters are used**. In the above example, ^ and \$ are metacharacters.
- Metacharacters **are characters that are interpreted in a special way by a RegEx engine**.