From random 10 exercises on the website, I think the following functions will help me in my data mining process:

1. re.search(): This is the most crucial function in regular expression. We use this function to look for patterns in a string. This function basically returns an object containing information about the search and the result.

* '[A-Za-z]+\_[A-Za-z]+$' pattern will help me look for letters joined with a underscore. This will help me identify identifiers inside a string.
* '^\w+' pattern will help me find if my string starts with leading blanks or not.
* I can use .span() method on the returned object to find the span of the pattern
* I can also use .start() and .end() method on the returned object to find the starting and ending index of the patter.

1. re.compile() : I can use this function to compile the list of characters, it can be a combination alphabetic, numeric and/ or special characters.

* We can pass r'[^a-zA-Z0-9]' inside the function if we want to check whether the string has special characters in it.

1. re.sub(): The sub() function replaces the matches with the text of my choice. If I need to replace special characters in a string with null or spaces, I can easily do that using this function.

* re.sub('[^a-zA-Z0-9 \n\.]', '', string) will replace all the special characters except period and line break with null.

1. re.split(): I can use this function to split a string into list elements using a delimiter. This will be very useful when I have to perform sentiment analysis or even iterating through words in a string for various operations.

* re.split("\s", string) will break the string into a list of words using space as a delimiter.