

For yelp search we need to highlight document snippets that match a query. For example a yelp search for [deep dish pizza] returns documents that match the query as well as highlights that try to show why the document is relevant. ([http://www.yelp.com/search?find\\_desc=deep+dish+pizza&ns=1&rpp=10&find\\_loc=San+Francisco%2C+CA](http://www.yelp.com/search?find_desc=deep+dish+pizza&ns=1&rpp=10&find_loc=San+Francisco%2C+CA) ). Note that highlights (1) highlight all the words in the query and (2) are not necessarily the full document (they are instead only a relevant snippet).

For this question you will write a function that finds the most relevant snippet for a document and highlights all the query terms that appear in the snippet (basically the highlights you saw on the linked search page). It is up to you to define what constitutes a good snippet and how big the snippets will be.

Indicate highlights by surrounding the text to be highlighted with `[[HIGHLIGHT]]` ... `[[ENDHIGHLIGHT]]`.

For instance "Little star's **deep dish pizza** sure is fantastic." would look like "Little star's `[[HIGHLIGHT]]`deep dish pizza`[[ENDHIGHLIGHT]]` sure is fantastic." internally.

One highlighting example might be:

```
highlight_doc("I like fish. Little star's deep dish pizza sure is fantastic. Dogs are funny.", "deep dish pizza") -> "Little star's [[HIGHLIGHT]]deep dish pizza[[ENDHIGHLIGHT]] sure is fantastic."
```

Note that your highlighter doesn't have to have the exact same result on this example, since \*you\* are defining what a good snippet is.

The solution can be in any language (but python is preferred). Attach your native source files (.py, .java, .cpp, etc...). Hint: Write your code as if your peers may be maintaining your code. Your code should be as if it were for a production environment. And don't forget to include unit tests!

I would like a function with the signature similar to the following:

```
def highlight_doc(doc, query):
```

```
    """
```

```
    Args:
```

```
        doc - String that is a document to be highlighted
```

```
        query - String that contains the search query
```

```
    Returns:
```

```
        The the most relevant snippet with the query terms highlighted.
```

```
    """
```