

```
# Question 1
```

```
string = "Madness? This is SPARTA!!!"
```

```
string_2 = string[0:len(string)-3] + '.'
```

```
print(string_2 + "\n")      # \n is for pretty visuals :)
```

```
word_1 = string[0:8]
word_2 = string[9:13]
word_3 = string[14:16]
word_4 = string[17:26]
```

```
print(word_1)
print(word_2)
print(word_3)
print(word_4)
```

```
#####
```

```
# Question 2
```

```
def extension(f_name):
```

```
    # This line is to find the index (location) of the dot character ('.') in the string.
    index = f_name.find('.')
```

```
    # Here is an alternative solution for finding a dot character ('.') in the string.
    # (This assumes there is only one dot character ('.') in the string)
    # We initialize index to -1, so if no dot characters are found, index stays at -1.
    # index = -1
    # for i in range(len(f_name)):
    #     if f_name[i] == '.':
    #         index = i
    #         break
```

```
    if index == -1:      # '.' not found
        print("Invalid file name!")
```

```
    else:
        print("Extension for", f_name, "is", f_name[index:len(f_name)])
```

```
extension("my_script.py")
```

```
extension("my_document.docx")
```

```
#####
```

```
# Question 3
```

```
def occurrence(source_string, letter):
```

```
    count = 0
```

```
    if len(letter) != 1:
        print("Invalid letter!")
```

```
    else:
        for char in source_string:
            if char == letter:
                count += 1
```

```
    print("The letter", "'" + letter + "'", "occurs in", "'" + source_string + "'", count, "times.")
```

```
string = input("Please enter a string to be searched: ")
```

```
character = input("Please provide a letter to be searched for: ")
```

```
occurrence(string, character)
```

```
#####
```

```
# TODO @ HOME section
```

```
def print_words_a(string):
```

```
    # The idea is to select a word from 'string', then display it, then delete it from 'string'.
    # Therefore, at the end, 'string' should be empty because we deleted every word from it.
    # If 'string' ends with multiple whitespaces, the solution still works,
    # but the output now includes some unnecessary blank lines.
```

```
    # Selecting a word from 'string' while it is not empty
    while string != "":
```

```
        # This line is to find the index (location) of the whitespace character (' ') in 'string'.
        index = string.find(" ")
```

```
        if index != -1:      # ' ' found: The word starts from the beginning of the string until the whitespace.
            word = string[0:index]      # Select the word
            string = string[index+1:len(string)]      # Remove it from 'string'
```

```
        else:
            # ' ' not found: 'string' is one word only.
            word = string      # Select the word
            string = ""      # Remove it from 'string'
```

```
        print(word)      # Display word
```

```
sentence = input("Enter a string: ")
```

```
print_words_a(sentence)
```

```
def print_words_b(string):
```

```
    while string != "":
```

```
        index = string.find(" ")
```

```
        if index != -1:
            word = string[0:index]
            string = string[index+1:len(string)]
        else:
```

```
            word = string
            string = ""
```

```
        # This loop is the addition for the (b) section. At this point, we already have a word selected from 'string'.
        # We start from the end of the word (because of indexing issues), and look for punctuation marks.
        # If there are any, we remove them.
        # We stop looking when a char is not a punctuation mark.
```

```
        for i in range(len(word) - 1, -1, -1):
            if word[i] == "!" or word[i] == "?" or word[i] == "." or word[i] == "," or word[i] == ":" or word[i] == ";":
                word = word[0:i]      # Remove the i'th char
            else:
                break      # i'th char is not a punctuation mark, stop searching and exit the loop.
```

```
        print(word)
```

```
sentence = input("Enter a string: ")
```

```
print_words_b(sentence)
```