

PYTHON CODE ANALYSIS

Tecnocampus

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1. Introduction

1.1 Description

This is a report document of the code in Python for project ../ex1. The files of the project are:

- > **scriptSelector.py**
- > **task1.py**
- > **task2.py**

1.2 Objectives

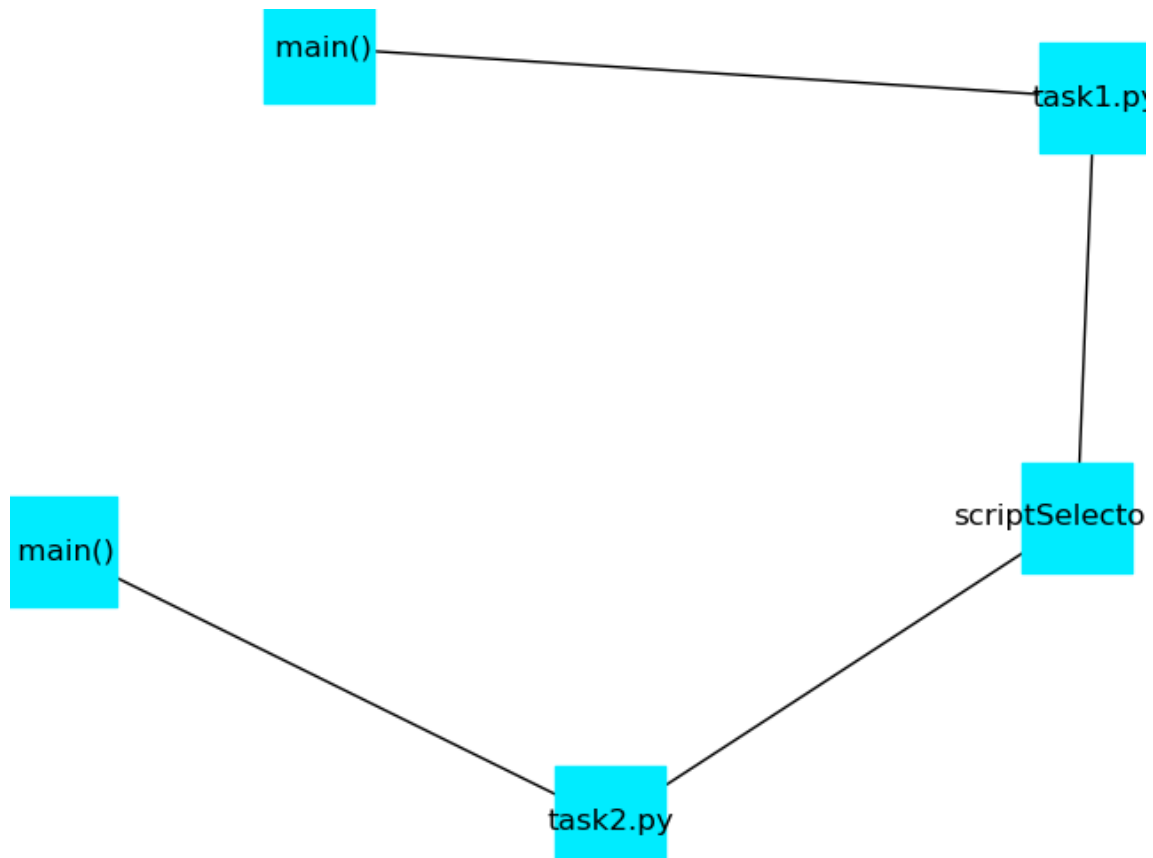
The objective of the document is to extract from the project coded in Python the main components, with the functions, the variables. This is the way to have a better understanding of the code, and to shorten the time to manage any improvement or modification of the code.

The document includes:

- > **The functions**
- > **The variables**
- > **The relationship between them**
- > **The imported libraries**
- > **The list of comments**

1.3 The structure of the project

The structure of the code is:



2. The programs

The list of the programs of the project is detailed in the next section

2.1 scriptSelector.py

Imported libraries are:

- > **task1: line 1**
- > **task2: line 2**

Defined functions are:

- > **There are no defined functions**

The comments on code are:

- > **we exit the infinite loop: line 9**
- > **Case insensitive: line 7**

The used variables are:

- > **mode**
 - **First use in line 5**
 - **Next uses:**
 - # **Use: line 8, 10, 12,**
- > **url**
 - **First use in line 6**
 - **Next uses:**
 - # **Use: line 7,**
- > **r**
 - **First use in line 7**
 - **Next uses:**
 - # **Operators:**
 - > **.text: line 9**
- > **html**
 - **First use in line 9**
 - **Next uses:**
 - # **Use: line 13,**
- > **verbInfo**
 - **First use in line 8**
 - **Next uses:**
 - # **Use: line 9,**
- > **verbDoc**

- First use in line 9
 - Next uses:
 - # Use: line 10,
- > soup
- First use in line 10
 - Next uses:
 - # Operators:
 - > .stripped_strings: line 18
- > infinitive
- First use in line 13
 - Next uses:
 - # Operators:
 - > .append: line 21
- > past
- First use in line 14
 - Next uses:
 - # Operators:
 - > .append: line 23
- > pastParticiple
- First use in line 15
 - Next uses:
 - # Operators:
 - > .append: line 27
- > catalan
- First use in line 16
 - Next uses:
 - # Operators:
 - > .append: line 29
- > head
- First use in line 33
 - Next uses:
 - # Use: line 89, 90,
- > verblists
- First use in line 38
 - Next uses:
 - # Reassignment: line 49,
 - # Use: line 49, 52,
 - # Operators:
 - > .append: line 44
- > numVerbs
- First use in line 39

- Next uses:
 - # Use: line 42, 47, 48,
- > n
 - First use in line 41
 - Next uses:
 - # Reassignment: line 45, 48,
 - # Use: line 42, 47, 45, 48, 49,
- > userInput
 - First use in line 43
 - Next uses:
 - # Use: line 45, 44,
- > lastVerb
 - First use in line 51
 - Next uses:
 - # Reassignment: line 91,
 - # Use: line 62,
- > answerSheet
 - First use in line 54
 - Next uses:
 - # Reassignment: line 64, 87,
 - # Use: line 64, 87, 89,
- > quizSheet
 - First use in line 58
 - Next uses:
 - # Reassignment: line 72, 76, 80, 84, 88,
 - # Use: line 72, 76, 80, 84, 88, 90,
- > c
 - First use in line 69
 - Next uses:
 - # Use: line 71, 75, 79,
- > readStrings
 - First use in line 18
 - Next uses:
 - # Use: line 19, 20, 22, 24, 28,
- > index
 - First use in line 52
 - Next uses:
 - # Use: line 89, 90,
- > string
 - First use in line 18

- **Next uses:**
 - # **Use:** line 19, 25, 21, 23, 27, 29,
 - # **Operators:**
 - > **.append:** line 26
- > **number**
 - **First use in line 52**
 - **Next uses:**
 - # **Use:** line 62, 54, 58, 91,
- > **x**
 - **First use in line 62**
 - **Next uses:**
 - # **Use:** line 64, 65, 72, 73, 76, 84, 85,

The used functions are:

- > **There are no defined or used functions in the code**

2.2 task1.py

Imported libraries are:

- > **pdfkit:** line 1
- > **requests:** line 2

Defined functions are:

- > **main():** line 5

The comments on code are:

- > **generate the pdf:** line 13
- > **and change the encoding to make sure special characters get rendered properly in the pdf:** line 11
- > **we get the text from the url, then remove the marquee from the original document:** line 10
- > **get the information from the url:** line 7

The used variables are:

- > **mode**
 - **First use in line 5**
 - **Next uses:**
 - # **Use:** line 8, 10, 12,
- > **url**
 - **First use in line 6**

- Next uses:
 - # Use: line 7,

> r

- First use in line 7
- Next uses:
 - # Operators:
 - > .text: line 9

> html

- First use in line 9
- Next uses:
 - # Use: line 13,

> verbInfo

- First use in line 8
- Next uses:
 - # Use: line 9,

> verbDoc

- First use in line 9
- Next uses:
 - # Use: line 10,

> soup

- First use in line 10
- Next uses:
 - # Operators:
 - > .stripped_strings: line 18

> infinitive

- First use in line 13
- Next uses:
 - # Operators:
 - > .append: line 21

> past

- First use in line 14
- Next uses:
 - # Operators:
 - > .append: line 23

> pastParticiple

- First use in line 15
- Next uses:
 - # Operators:
 - > .append: line 27

> catalan

- First use in line 16
 - Next uses:
 - # Operators:
 - > .append: line 29
- > head
- First use in line 33
 - Next uses:
 - # Use: line 89, 90,
- > verblists
- First use in line 38
 - Next uses:
 - # Reassignment: line 49,
 - # Use: line 49, 52,
 - # Operators:
 - > .append: line 44
- > numVerbs
- First use in line 39
 - Next uses:
 - # Use: line 42, 47, 48,
- > n
- First use in line 41
 - Next uses:
 - # Reassignment: line 45, 48,
 - # Use: line 42, 47, 45, 48, 49,
- > userInput
- First use in line 43
 - Next uses:
 - # Use: line 45, 44,
- > lastVerb
- First use in line 51
 - Next uses:
 - # Reassignment: line 91,
 - # Use: line 62,
- > answerSheet
- First use in line 54
 - Next uses:
 - # Reassignment: line 64, 87,
 - # Use: line 64, 87, 89,
- > quizSheet
- First use in line 58
 - Next uses:

```
# Reassignment: line 72, 76, 80, 84, 88,  
# Use: line 72, 76, 80, 84, 88, 90,  
  
> c  
- First use in line 69  
- Next uses:  
  # Use: line 71, 75, 79,  
  
> readStrings  
- First use in line 18  
- Next uses:  
  # Use: line 19, 20, 22, 24, 28,  
  
> index  
- First use in line 52  
- Next uses:  
  # Use: line 89, 90,  
  
> string  
- First use in line 18  
- Next uses:  
  # Use: line 19, 25, 21, 23, 27, 29,  
  # Operators:  
    -> .append: line 26  
  
> number  
- First use in line 52  
- Next uses:  
  # Use: line 62, 54, 58, 91,  
  
> x  
- First use in line 62  
- Next uses:  
  # Use: line 64, 65, 72, 73, 76, 84, 85,
```

The used functions are:

```
> There are no defined or used functions in the code
```

2.3 task2.py

Imported libraries are:

```
> requests: line 1  
> random: line 2  
> pdfkit: line 3  
> BeautifulSoup: line 4
```

Defined functions are:

- > **main(): line 7**

The comments on code are:

- > **Partial Table: line 67**
- > **Complete Table: line 63**
- > **if the last number given by the user is larger than the number of verbs remaining, we adjust it: line 47**
- > **Pdf formatting: line 31**
- > **We retrieve the verbs and store them for later use: line 12**

The used variables are:

- > **mode**
 - **First use in line 5**
 - **Next uses:**
 - # **Use: line 8, 10, 12,**
- > **url**
 - **First use in line 6**
 - **Next uses:**
 - # **Use: line 7,**
- > **r**
 - **First use in line 7**
 - **Next uses:**
 - # **Operators:**
 - > **.text: line 9**
- > **html**
 - **First use in line 9**
 - **Next uses:**
 - # **Use: line 13,**
- > **verbInfo**
 - **First use in line 8**
 - **Next uses:**
 - # **Use: line 9,**
- > **verbDoc**
 - **First use in line 9**
 - **Next uses:**
 - # **Use: line 10,**
- > **soup**
 - **First use in line 10**
 - **Next uses:**

```
# Operators:
-> .stripped_strings: line 18

> infinitive
- First use in line 13
- Next uses:
  # Operators:
  -> .append: line 21

> past
- First use in line 14
- Next uses:
  # Operators:
  -> .append: line 23

> pastParticiple
- First use in line 15
- Next uses:
  # Operators:
  -> .append: line 27

> catalan
- First use in line 16
- Next uses:
  # Operators:
  -> .append: line 29

> head
- First use in line 33
- Next uses:
  # Use: line 89, 90,

> verblists
- First use in line 38
- Next uses:
  # Reassignment: line 49,
  # Use: line 49, 52,
  # Operators:
  -> .append: line 44

> numVerbs
- First use in line 39
- Next uses:
  # Use: line 42, 47, 48,

> n
- First use in line 41
- Next uses:
  # Reassignment: line 45, 48,
```

- # Use: line 42, 47, 45, 48, 49,
- > userInput
 - First use in line 43
 - Next uses:
 - # Use: line 45, 44,
- > lastVerb
 - First use in line 51
 - Next uses:
 - # Reassignment: line 91,
 - # Use: line 62,
- > answerSheet
 - First use in line 54
 - Next uses:
 - # Reassignment: line 64, 87,
 - # Use: line 64, 87, 89,
- > quizSheet
 - First use in line 58
 - Next uses:
 - # Reassignment: line 72, 76, 80, 84, 88,
 - # Use: line 72, 76, 80, 84, 88, 90,
- > c
 - First use in line 69
 - Next uses:
 - # Use: line 71, 75, 79,
- > readStrings
 - First use in line 18
 - Next uses:
 - # Use: line 19, 20, 22, 24, 28,
- > index
 - First use in line 52
 - Next uses:
 - # Use: line 89, 90,
- > string
 - First use in line 18
 - Next uses:
 - # Use: line 19, 25, 21, 23, 27, 29,
 - # Operators:
 - > .append: line 26
- > number
 - First use in line 52

- **Next uses:**
 - # **Use:** line 62, 54, 58, 91,
- > **x**
 - **First use in line 62**
 - **Next uses:**
 - # **Use:** line 64, 65, 72, 73, 76, 84, 85,

The used functions are:

- > **There are no defined or used functions in the code**

3. Some statistics

The project has 3 programs, with 2 defined functions. The program defines 25 variables and import 4 libraries (external libraries) on 130 lines of python code.