

Министерство науки и высшего образования РФ

**Федеральное государственное автономное
образовательное учреждение высшего образования
«Национальный исследовательский университет ИТМО»**

Факультет информационных технологий и программирования

Лабораторная работа №2

Работа с VSCode.

Выполнил студент группы № М3102

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Подпись:

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Текст лабораторной работы

1. Download Visual Studio Code
2. Configure to run and debug code (java, python or c++).
3. Develop a project (file reading/ basic console calculator)
4. Write a system of tests to your programm
5. Learn Visual Studio Code CLI: list 10 or more basic commands
6. Develop 5 snippets
7. Learn and list popular HotKeys
8. Get your code documented with <https://marketplace.visualstudio.com/items?itemName=cschlosser.doxdocgen> (or analogues)
9. Set FiraCode (or some)
10. Set this up <https://marketplace.visualstudio.com/items?itemName=MS-vsiveshare.vsliveshare> (and/or any different extension or built-in options in IDE for sharing your code and for session routine)

Отчет

1. **Done**
2. **Done**
3. **Simple project:**
https://github.com/Lopa10ko/ITMO-cyberculture-2021-2022/blob/main/console_calculator.py
4. **System of tests:**
https://github.com/Lopa10ko/ITMO-cyberculture-2021-2022/blob/main/unittesting_console_calculator.py

5. Visual Studio Code Command Line Interface (VSCode CLI)

VSCode has a pre-built shell command interface. You have to press Ctrl Shift P and type "shell command" to set your (code) up. After that you pretty much are powered up, because all you have to do is open the prompt shell and start your workflow.

Here is a list of useful commands in CLI:

>code -h --help	Get all the options of CLI in one place
>code -d --diff <file> <file>	Compare two files with each other
>code a --add <folder>	Add folder(s) to the last active window
>code -g --goto <file:line[:char]>	Open a file at the path on the specified line and character position
>code -n --new-window	Force to open a new window
>code -r --reuse-window	Force to open a file or folder in an already opened window
>code -w --wait	Wait for the files to be closed before returning
>code --locale <locale>	The locale to use (e.g. en-US or zh-TW)
>code --user-data-dir <dir>	Specifies the directory that user data is kept in. Can be used to open multiple distinct instances of Code

>code --list-extensions	List the installed extensions
>code --install-extension <extension-id[@version] path-to-vsix>	Install extension

6. Snippets

1	{
2	"Assert equal": {
3	"prefix": "ase",
4	"body": "self.assertEqual(\${1:expected}, \${2:actual}\${3:, '\${4:message}'}))\$0"
5	},
6	"New enum": {
7	"prefix": "enum",
8	"body": [
9	"from enum import Enum\n\n",
10	"class \${1:MyEnum}(Enum):",
11	"\t\"\"\"\${2:Docstring for \$1.}\"\"\"",
12	"\t\${3:FIRST_ENUM} = \"some_value\"",
13	"\t\${4:SECOND_ENUM} = \"some_other_value\"",
14	"\t\$0"
15],
16	"description": "Code snippet for enum definition."
17	},
18	"try:except:else:finally": {
19	"prefix": "tryef",
20	"body": "try:\n\t\${1:pass}\nexcept\${2: \${3:Exception} as \${4:e}}:\n\t\${5:raise}\nelse:\n\t\${6:pass}\nfinally:\n\t\${7:pass}\$0",
21	"description" : "Code Snippet for a try/except/finally with else statement."
22	},
23	"if __name__ == \"__main__\"": {
24	"prefix": "ifmain",
25	"body": "if __name__ == \"__main__\":\n\t\${1:main()}\$0",
26	"description" : "Create implicitly all the code at the top level using the __name__ special variable."
27	},
28	"New class": {
29	"prefix": "class",
30	"body": [
31	"class \${1:ClassName}(\${2:object}):",
32	"\t\"\"\"\${3:docstring for \$1.}\"\"\"",
33	"\tdef __init__(self, \${4:arg}):",
34	"\t\t\${5:super(\$1, self).__init__()}:",
35	"\t\tself.\$4 = \$4",
36	"\t\t\$0"
37],
38	"description" : "Code snippet for a class definition."
39	},
40	}

7. Hotkeys

Rename All Occurance	Ctrl + F2
Delete current line	Ctrl + Shift + K
Create a new file	Ctrl + N
Save as...	Ctrl + Shift + S
Move line up/down	Alt + Up/Down Arrow
Show all commands	Ctrl + Shift + P
Stop terminal command	Ctrl + Alt + C
Close editor on file	Ctrl + F4
Quick open view	Ctrl + Q
Custom .py in terminal	Alt + Z
Format file	Shift + Alt + F
Zen mode	Ctrl + K Z
AltTabing	Ctrl + Tab

8. Doxygen

file:///C:/Users/Georgy/Desktop/cyberculture_21-22/ITMO-cyberculture-2021-2022/html/namespaceconsole_calculator.html

Lab2_cyberculture 0.1.0
Console calculator

Lab2_cyberculture

Doxygen Documentation

ITMO-cyberculture-2021-2022

Namespaces

Namespace List

console_calculator

unittesting_console_calculator

Namespace Members

Classes

Files

console_calculator Namespace Reference

Functions

def test_main ()
Testing by hand. More...

def main (parsed_str)
Getting the answer calculated. More...

Function Documentation

◆ main()

def console_calculator.main (parsed_str)

Getting the answer calculated.

◆ test_main()

def console_calculator.test_main ()

Testing by hand.

Lab2_cyberculture 0.1.0
Console calculator

Main Page

Related Pages

Classes ▾

Files ▾

Doxygen Documentation

Description

An example Python program demonstrating how to use Doxygen style comments for generating source code documentation with Doxygen.

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An example Python program demonstrating how to use Doxygen style comments for generating source code documentation with Doxygen.

9. <https://fonts.google.com/specimen/Fira+Code>

10. Liveshare

The screenshot shows a VS Code editor with a Python file named `console_calculator.py`. The code includes a docstring, a `test_main()` function with multiple `assert` statements, and a `main()` function that calculates the sum of digits in a string. The terminal output shows "all checked" and the command prompt `PS C:\Users\Georgy\Desktop\cyberculture_21-22\ITMO-cyberculture-2021-2022>`.

On the right, the Live Share session chat shows the following messages:

- Thursday, November 25
- Lopa10ko G.** 16:39
has started the Live Share session
- Daddy dogs (Read-only)** 16:42
has joined the Live Share session

The status bar at the bottom indicates the Python 3.9.6 64-bit environment and the user Lopa10ko.

mission passed!

RESPECT + 99