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1. Overview

- 1.1. The Smart-Console is a Python 3 library designed to make console applications for various purposes.
- 1.2. Smart-Console offers a variety of functions that can save the developer a lot of code writing.

2. How to use

- 2.1. Download Smart-Console.py from
<https://github.com/VladFeldfix/Smart-Console>
- 2.2. Place the file in your Python folder.
(typically: C:\Python\Python313\Lib\SmartConsole.py)
- 2.3. Once the SmartConsole.py is among your other libraries, you can import it.
- 2.4. Below is a template for a program using the smart console.

```
from SmartConsole import *
class main:
    # constructor
    def __init__(self):
        # load smart console
        self.sc = SmartConsole("Sample program", "1.0")

        # set-up main menu
        self.sc.add_main_menu_item("FUNCTION1", self.fun1)
        self.sc.add_main_menu_item("FUNCTION2", self.fun2)

        # get settings
        self.path_main = self.sc.get_setting("My folder")


        # test all paths
        self.sc.test_path(self.path_main)

        # start
        self.sc.start()

    def fun1(self):
        # insert your code here and also make fun2 in the same way

        # restart
        self.sc.restart()
main()
```

Code 1 - import smart console

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2.5. Once Smart-Console is implemented as an object as presented in Code1, the developer can use the smart console functions as described in section 3

3. Smart-Console Functions:

3.1. CONSTRUCTOR

3.1.1. **init__(name, version)** - this is the constructor function and it requires the following arguments:

3.1.1.1. **Name** - the name of your application

3.1.1.2. **Version** - the version of your application

3.2. FLOW

3.2.1. **start()** - Start the application displaying the application header, version, and main menu

3.2.2. **restart()** - Restarts the application

3.2.3. **exit()** - Exits the application

3.3. MAIN MENU

3.3.1. **add_main_menu_item(name, function)** - creates a new item in the main menu

3.3.1.1. **Name** - The name of the function for example: "RUN"

3.3.1.2. **Function** - The function to call when this menu item is selected. For example: self.run

3.4. INPUT

3.4.1. **input(text)**

3.4.1.1. **text** - The prompt of the input

3.4.1.2. **RETURN VALUE**: The inserted text


3.4.2. **question(text)**

3.4.2.1. **text** - The prompt of the question

3.4.2.2. **RETURN VALUE**: True or False

3.4.3. **choose(text, options)**

3.4.3.1. **text** - The prompt of the displayed menu

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3.4.3.2. **options** - A list of possible options

3.4.3.3. **RETURN VALUE:** The text of the selected option

3.5. OUTPUT

3.5.1. **print(text)**

3.5.1.1. **text** - The text to display

3.5.2. **good(text)**

3.5.2.1. **text** - The text of the good message to display

3.5.3. **warning(text)**

3.5.3.1. **text** - The text of the warning message to display

3.5.4. **error(text)**

3.5.4.1. **text** - The text of the error to display

3.5.5. **fatal_error(text)**

3.5.5.1. **text** - The text of the fatal error to display before exiting the application

3.5.6. **hr()** - Draws a horizontal line

3.6. SETTINGS

3.6.1. **open_settings()** - Opens "settings.txt" to edit

3.6.2. **get_setting(var)**

3.6.2.1. **var** - the name of the setting

3.6.2.2. **RETURN VALUE:** The value of the given setting

3.7. INFO

3.7.1. **help()** - Displays the help file "help.pdf"

3.7.2. **svh()** - Displays the file: "software software history.pdf"


3.8. FILE HANDLER

3.8.1. **test_path(path)**

3.8.1.1. **path** - Throws a fatal error if the given path is missing

3.8.2. **open_folder(path)**

3.8.2.1. **path** - Open a given folder with Windows File Explorer

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3.8.3. **load_csv(path)**

3.8.3.1. **path** - The location of the .csv file

3.8.3.2. **RETURN VALUE:** the content of the given .csv file as a list

3.8.4. **save_csv(path, data)**

3.8.4.1. **path** - The location of the .csv file to save

3.8.4.2. **data** - a list to be saved as a .csv file

3.9. **SCRIPT**

3.9.1. **run_script(path, functions)**

3.9.1.1. **path** - The location of the script file to read

3.9.1.2. **functions** - a directory of functions to activate. For example:

```
{"START":(self.start("Argument0","Argument1","Argument3"))
}
```

3.10. **DATABASES**

3.10.1. **save_database(path, data)**

3.10.1.1. **path** - The location of the file to save

3.10.1.2. **data** - a directory

3.10.2. **load_database(path, headers)**

3.10.2.1. **path** - The location of the file to load

3.10.2.2. **headers** - the headers of the directory

3.10.3. **invert_database(database)**

3.10.3.1. **database** - a directory to invert

3.10.3.2. **RETURN VALUE:** the inverted version of the given directory

3.11. **DATE**


3.11.1. **today()** - Returns today's date

3.11.1.1. **RETURN VALUE:** current date in format: YYYY-MM-DD

3.11.2. **current_year()**

3.11.2.1. **RETURN VALUE:** current year in format: YYYY

3.11.3. **current_month()**

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3.11.3.1. **RETURN VALUE:** current month in format: MM

3.11.4. **current_day()**

3.11.4.1. **RETURN VALUE:** current day in format: DD

3.11.5. **current_week()**

3.11.5.1. **RETURN VALUE:** current week number in format: WW

3.11.6. **current_weekday()**

3.11.6.1. **RETURN VALUE:** current weekday number: 1-Sunday, 2-Monday, 3-Tuesday, 4-Wednesday, 5-Thursday, 6-Friday, 7-Saturday, in format: 0

3.11.7. **now()**

3.11.7.1. **RETURN VALUE:** current time in format: HH:MM

3.11.8. **right_now()**

3.11.8.1. **RETURN VALUE:** current time in format: HH:MM:SS

3.11.9. **current_hour()**

3.11.9.1. **RETURN VALUE:** current hour number in format: HH

3.11.10. **current_minute()**

3.11.10.1. **RETURN VALUE:** current minute number in format: MM

3.11.11. **current_second()**

3.11.11.1. **RETURN VALUE:** current second number in format: SS

3.11.12. **current_millisecond()**

3.11.12.1. **RETURN VALUE:** current millisecond number in format: MS

3.11.13. **current_time()**


3.11.13.1. **RETURN VALUE:** current time in format: HH:MM:SS:MS

3.11.14. **test_date(givenDate)**

3.11.14.1. **givenDate** - a text in the format YYYY-MM-DD

3.11.14.2. **RETURN VALUE:** True or False that the given text is in the following date format: YYYY-MM-DD

3.11.15. **compare_dates(firstDate, secondDate)**

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3.11.15.1. **firstDate** - a text in the format YYYY-MM-DD

3.11.15.2. **secondDate** - a text in the format YYYY-MM-DD

3.11.15.3. **RETURN VALUE:** The number of days between firstDate to
secondDate

4. Document version history

4.1. **v1.0** Created on 2025-03-17