

Ministry of Science and Higher Education of the Russian Federation

Penza State University

Department of Computer Engineering

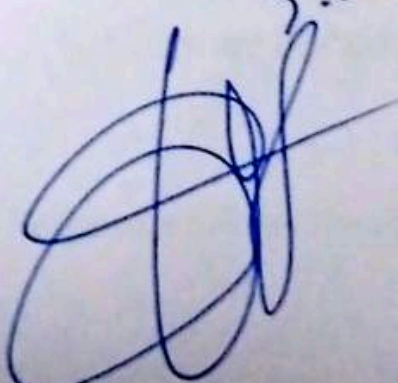
REPORT on the course work

Topic «Development of a program of complex structure using the top-down programming method»

Technical executor:

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Checker: Fedyunin R.N.

Amr
3.10.2024


Penza

2024

APPROVED

Head Department of VT

_____ M.A. Mitrokhin

« _____ » 2024 year

THE TASK LIST

for the course task

Programming

Student : Badr EL AMRANI

Group 23BBив1

Project topic: **Development of a program of complex structure using the top-down programming method.**

Initial data (technical requirements) for design Develop a Restaurant Management System in which a person can save , execute read and data .

Mandatory program requirements:

1. video system operating mode -graphic
2. Use of complex data types – Definition Function, lists, files...
4. Information input device – keyboard, mouse.
5. The user interface should be based on menus and toolbars.
6. Availability of a screensaver.
7. Operating system MS Windows.
8. Programming language – Python ,tkinter library .
9. Software development environment – (PC) Pycharm community .

Scope of work for the course

Algorithm part

Program development.

The grafical part

Data diagram, system resource diagram, system operation diagram, hierarchical structure of the program, program interaction diagram.

Experimental part

Debugging the program.

Project completion time by section

According to schedule.

The date of issue of the task is "May 5", 2024.

Project defense date " " _____

Head Mitrohin M.A.

Fedunin P.N. _____
Received the task on "May 5", 2024.

Student Badr EL AMRANI . *[Signature]* _____

These functions allow dynamic interaction in a graphical user interface (likely a form or a POS system). When a user selects tea or juice, the corresponding input field (where the quantity is entered) becomes active and visually highlighted. If the item is not selected, the input field remains inactive or disabled.

GUI Elements:

The terms like state, bg, and fg suggest that this code is working with a graphical user interface toolkit, like Tkinter in Python, where:

state: Refers to whether a widget (like a text box) is enabled/disabled.

bg: Background color of the widget.

fg: Foreground (text) color of the widget.

Bibliography

References:

<https://www.programiz.com/python-programming>

<https://chatgpt.com/>

<https://www.youtube.com/@codebasics>

<https://www.programiz.com/sql>

<https://www.w3schools.com/python/>

Condition:

The if statement checks whether `tea_var.get()` is equal to 1. This likely means that the user has selected tea.

If `tea_var.get() == 1` (tea is selected), the following actions happen:

The state of the `tea_qty` input field (where the user can enter the number of tea orders) is set to "normal" (i.e., it becomes editable).

The background color (bg) of the input field changes to a hex color `#248aa2` (a shade of blue).

The foreground color (fg) of the input field changes to "white".

If `tea_var.get() != 1` (tea is not selected), the `tea_qty` input field is disabled (state = "disabled"), meaning the user cannot input any quantity.

`juice_chk()` function:

Condition:

Similarly, `juice_chk()` checks whether `juice_var.get()` is equal to 1, meaning that the user has selected juice.

If `juice_var.get() == 1` (juice is selected), the `juice_qty` input field becomes editable (state = "normal") with a background color of `#248aa2` (blue) and a foreground color of "white".

If `juice_var.get() != 1`, the `juice_qty` field is disabled.

General Purpose of Both Functions: