| Problem Domain: | Textual User Interface ("TUI") |
| --- | --- |
| Mission Summary: | Create an "Input Option Loop" |
| Prerequisite: | Completion of "Python 1000" (available at Udemy.com) |
| Your Script Name: | PR10_MenuChoices.py |
| Solution Name: | PR10S_MenuChoices.py |
| Version: | 1.0 |

## Synopsis

Once activated, Textual User Interfaces can allow users to choose between several options.

In this exercise, we will create a program that will "loop" until a specific option-string has been entered.
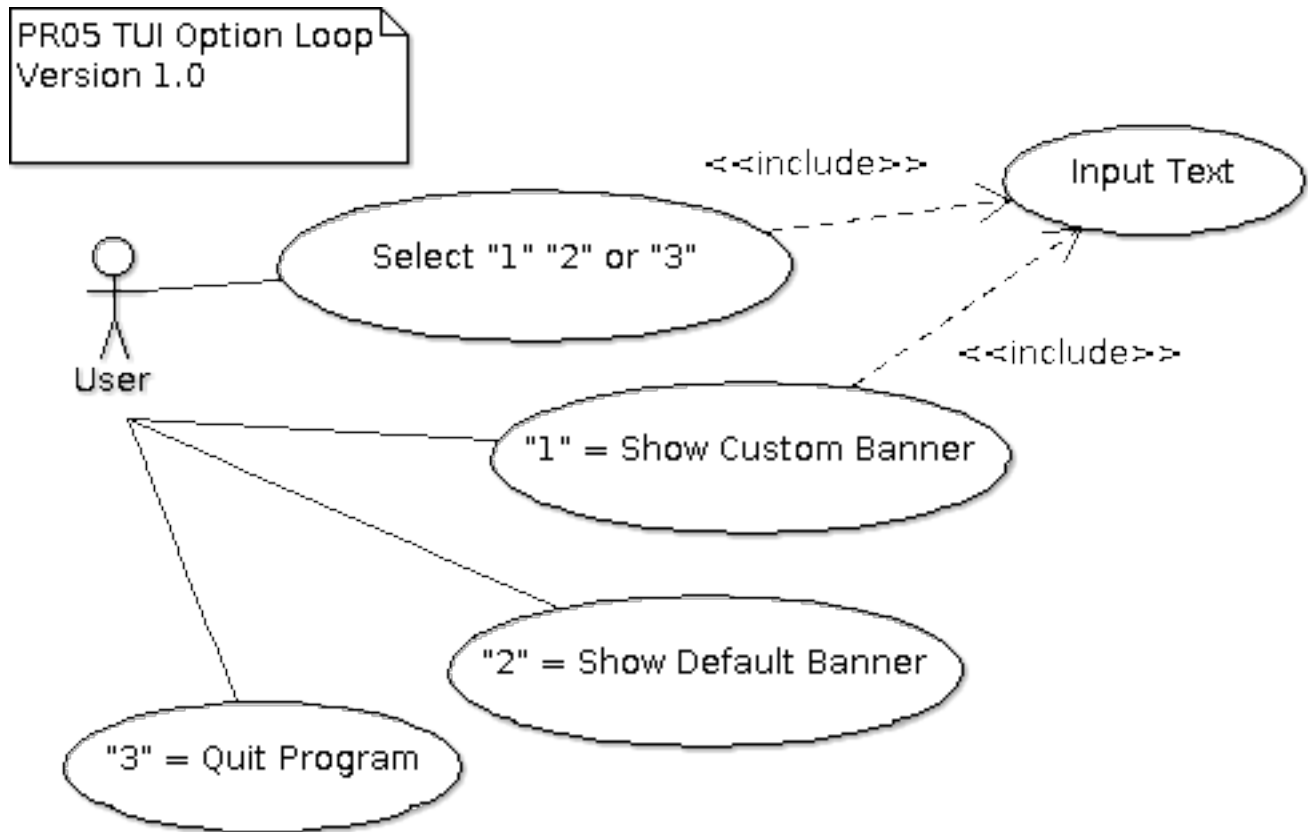


Please note that pure string options are to be both collected, as well as used throughout this application[i].

## Requirements

**1)** Create a script named PR05_MenuChoices.py
**2)** Review the Activity Diagram located in the "**Related Diagrams**" section below
**3)** Match the following terms & requirements (or "states") to those in the Activity Diagram:
**4)** GREETING:
    A)    Display "WELCOME to PR05!"
    B)    Display three (3) empty lines

**5)** MENU_CHOICES:
    A)    Option "CUSTOM_BANNER"
       1) Present as option "1.) Display Custom Banner"
       2) Allows user to input a custom message to be displayed as a banner
    B)    Option "DEFAULT_BANNER"
       1) Present as option "2.) Display Default Banner"
       2) Allows user to display "Hello User!"
    C)    Option "QUIT_PROGRAM"
       1) Present as option "3.) Quit Program"
       2) Allows user to quit the program / break the main loop
    D)    Condition "BAD_CHOICE"
       1) The entry of any other text shall display the message "Bad Choice"
       2) The BAD_CHOICE message shall be displayed upon a single line
       3) After the BAD_CHOICE message has been displayed, the program will re-
       display (loop to / resume) the MENU_CHOICES operation
**6)** MENU_SELECTION:
    A)    The user need only input "1", "2", or "3" followed by the "enter" key
    B)    The use of the enter key is required
**7)** BONUS
    A)    Re-use one of the BANNER functions created for Python 1000
    B)    Change CUSTOM_BANNER to display the current date & time as a banner

## Related Diagrams

The main Activity Diagram depicts a graphical summary of the requirements, as well
as a reasonably demonstrative operational overview:
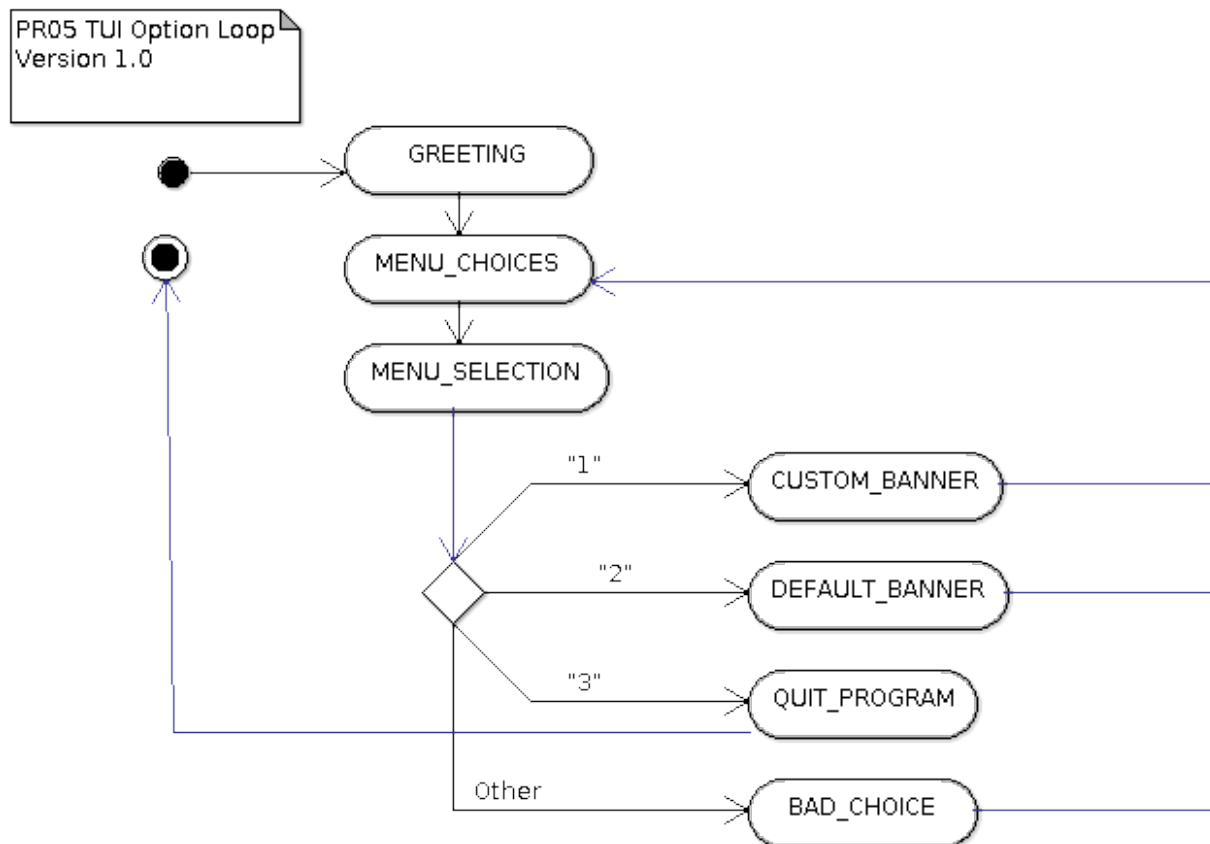
i In order to avoid type-conversion errors / exceptions, the conversion from textual input-strings to other types (int, etc.) is NOT to be used. The use of Exceptions will be covered in Python 2000.