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Documentation for Assignment 1

FIT9133.Programming foundations in Python S1 2019

This report is created for the purpose of usage demonstration of program written for Assignment 1, which consists of three parts. A Menu, Implementing the Nerd Score and Finding your class. The main idea of this program is to take some input information from user in form of numbers (Fandom Score, Hobbies Score, Number of Sports played) and calculate (using formula provided by a task creator) final Nerd Score of a person. As well as to represent number of different classes of nerds and count the number of each occurrences for each class. Interaction with the user is implemented in form of a menu.

A Menu

This program uses a special menu with different possible options to interact with user, allowing user to choose from:

- Fandom Score
- Hobbies Score
- Number of Sports Played
- Counting Nerd Score
- Showing Nerd Class table division
- Quitting Program (used as authors own Assumption, was not prescribed by creator of a task)

This is how main menu looks like in terminal window:

```
Welcome to the Nerd Score!
        CHOOSE THE ACTION:
        To enter your Fandom Score press 1
        To enter your Hobbies Score press 2
        To enter Number of Sports played press 3
        To calculate your Nerd Score press 4
        To print Nerd Rating of students press 5
        To exit Nerd Score press 0
Your choice:
```

Upon correct input for user program records the number for each option:

```
Welcome to the Nerd Score!
    CHOOSE THE ACTION:
    To enter your Fandom Score press 1
    To enter your Hobbies Score press 2
    To enter Number of Sports played press 3
    To calculate your Nerd Score press 4
    To print Nerd Rating of students press 5
    To exit Nerd Score press 0
Your choice: 1
    WHAT IS YOUR FANDOM SCORE?: 23
Your Fandom Score is 23
```

If there was incorrect number selected for any option (as prescribed by the task), error pops up and program asks to re-enter number (menu shows up every time when each option selected, due to that numbers can be rewritten unlimited).

Screenshots demonstrates error message and request user to re-enter information again:

```
    To exit Nerd Score press 0
 Your choice: 2
     HOW MUCH HOBBIES YOU HAVE?: 5
 You typed wrong Hobbies number! Try again:2
 You typed wrong Hobbies number! Try again:4
 Your Hobbies Score number is: 4
```

Next screenshots demonstrate other possible options such as display nerd class table distribution (option 5) and quit option of program which is an author's assumption (option 0) accordingly:

```
Your choice: 5
This is division for your nerd classes:
| Score | Classification| Output|
| 0     | Nerdlite      | 0     |
| 1     | Nerdling      | 1     |
| 10    | Nerdlinger    | 2     |
| 100   | Nerd          | 3     |
| 500   | Nerdington    | 4     |
| 1000  | Nerdometa     | 5     |
| 2000  | Nerd Supreme  | 6     |
```

```
    To exit Nerd Score press 0
Your choice: 0
Are you sure you want to quit Nerd Score?: Y/N
Goodbye!

Process finished with exit code 0
```

As you can see user can choose option to return or to quit as well typing “Y” or “N”.

Calculating Nerd Score using special formula is recalled upon choosing Option 4. It calculates your score if there are all correct inputs given for each part of formula: fandom score, hobbies score, and number of sports played. If some numbers are missing program, ask to fill all. Upon successful calculation of the Nerd Score it shows a result and asks whether user wants to recalculate score(user have to rewrites all values for new score) or just quit.

Successful calculation and request for recalculation is chosen:

```
Your choice: 4
23.0
You got your score, you want to keep this one or to calculate it again?: Y/N
    CHOOSE THE ACTION:
    To enter your Fandom Score press 1
    To enter your Hobbies Score press 2
    To enter Number of Sports played press 3
    To calculate your Nerd Score press 4
    To print Nerd Rating of students press 5
    To exit Nerd Score press 0
Your choice:
```

“Missing some values” error pops up:

```
Your choice: 4
YOU MISSING FANDOM SCORE! Fill your Fandom Score in!
YOU MISSING NUMBER OF HOBBIES OR TYPED 0! You can not use Nerd Score calculation if number of hobbies is 0! Fill with right numb
YOU MISSING NUMBER OF SPORTS! Fill number of sports you play
```

Successful completion of task:

```
Your choice: 4
909.2227449860677
You got your score, you want to keep this one or to calculate it again?: Y/NN
Your final Nerd Score 909.2227449860677 !

Process finished with exit code 0
```

Implementing the Nerd Score

A second program of assignment is designed to calculate Nerd Score using specific formula and shows output:

```
18.33030277982336

Process finished with exit code 0
```

Upon lacking appropriate numbers, it is doing checking and print error message. It is checking correctness of each number and at first occurrence of a mistakes prints error message:

```
Fandom Score can nto be less or equal to zero!

Process finished with exit code 0
```

```
Hobbies Score should be multiplies of 4 and not equal to 0

Process finished with exit code 0
```

Finding your Class

Third part of assignment counts number of each occurrence of a nerd class for each student and prints result:

```
There is a number of student Nerd Scores and the number of each   class appearances
[955, 1142, 3339, 2430, 2160, 2552, 3227, 667, 4204, 3606]
[0, 0, 0, 0, 2, 1, 7]

Process finished with exit code 0
```