

Program: A Fantastically Fabulous List

Your task in this programming assignment is to write a Python program that generates a list of integers, such that both its length and the integers added to the list are provided by the user. Subsequently display the list, followed by statistical information (see below) about the list. Here's output of a sample run (user input is shown in bold red):

```
How many integers would you like to add to the list? 7
Enter an integer: 54
Enter an integer: 91
Enter an integer: 23
Enter an integer: 8
Enter an integer: -66
Enter an integer: 39
Enter an integer: 2
The original list: [54, 91, 23, 8, -66, 39, 2]
The length of the list is 7.
The minimum value in the list is -66.
The maximum value in the list is 91.
The reversed list: [2, 39, -66, 8, 23, 91, 54]
The sorted list: [-66, 2, 8, 23, 39, 54, 91]
```

To help clarify, here are some specifics and/or constraints:

- (1) The integers must be stored in a single Python list;
- (2) Generating the list (including getting/setting its length) must be done in a function that is called from the main part of the program (see the template for more details);
- (3) You must use the list functions discussed in class to add integers to the list and to display information about and/or modify the list (i.e., its length, the minimum and maximum values in the list, reversing the list, and sorting the list);
- (4) You must use the provided source code template; and
- (5) You must submit your source code as a single .py file.