Programming Fundamentals LAB – BSDSF23

(Both Morning and Afternoon)

Lab 11 – 28-11-2023

Note: YOU may USE Command Prompt or ***Mu Editor*** to interpret and execute all the PYTHON programs. Use of any IDE, except ***Mu Editor*** is not allowed for this LAB, despite you are expert. Unless and until you convinced me of it personally.

Also note, if the computer systems are not equipped with python interpreter, you may use online compiler at the following URL highlighted in yellow. And in case it is also difficult to use for any reason, you need to do the paperwork within the LAB time for all tasks, as discussed in the class sessions. Thanks

https://www.programiz.com/python-programming/online-compiler/

Tasks set 1 (15 each)

In the context of the slides copy/pasted below, demonstrate the computation and output of the sum of random values between 10 and 99 in the four ways to use arrays.

1. Take array of arraysize 100 full of appropriate random values.
2. Take array of arraysize 1000 with datasize of 100, and values stored in arrays at its lower indices, another/separate variable of is used to note datasize.
3. Take array of arraysize 1000 with datasize of 100, and values stored in arrays at its lower indices, but after data, a negative number say -1, is place as end of data marker.
4. Take array of arraysize 1000 with datasize of 100, and values stored in arrays at its random indices, and vacant cells of the array are marked with a negative number say -1.

Tasks set 2 (20 each)

5. Demonstrate the joining of arrays in **second** and **third** cases, with datasize variable and end of data marker.

Arrays (in little depth)

Arrays may be used in following 4 scenarios

- Data in array completely filled it
- Data in array is less than its size
  - Data in array is at its lower indices with an additional variable for its ***data size***
  - Data in array is at its lower indices with an ***end of data*** marker place after the last data value
  - Data in array at anywhere but empty locations are marked with a ***special/sentinel value***

Thanks, for your **patience**

If you got time, solve some pending tasks from previous labs