

Programming Fundamentals LAB – BSDSF21

(Both Morning and Afternoon)

Lab 11 – 21-04-2022

YOU may USE Command Prompt 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 in personal capacity.

You are already provided examples related to 2D and 4D arrays, which were discussed in class sessions. You are required to understand them completely, and

1. Create a 2D array with appropriate random data of size 12 rows and X columns, where X should be at least 5. The 12 rows represent the month number (0 to 11) and columns represent budget heads, e.g., travelling, eating, books and stationery, charity, mobile package, etc. Then similar to the computation in example related to 2D array, write at least 5 different functions and test them in the main logic. The functions include:
 - a. Total budget of the year
 - b. The month with maximum budget
 - c. The total charity
 - d. The month with maximum of travelling
 - e. and other similar functions
2. Write the code for the functions mentioned in the code file related to 4D example and test them in main function.
3. For the code related to 4D example, write logic to output the data in better presentable form.
4. Make a problem of your own but similar to above mentioned, for 3D array. Better to prepare its solution too.

Thanks, for your patience

40, 40, 10, 10