PYTHON WORKSHOP

DAY 1 (18-7-22)

- ANACONDA INSTALIZATION
- LITERATE PROGRAMMING
- MARKDOWN BASICS
- RUN HTML CODE IN MARKDOWN
- DISPLAY IMAGE IN MARKDOWN
- INTRODUCTION TO PYTHON WITH FEATURES
- NECESSITY OF PYTHON

DAY- 2 (19-7-22)

- PYTHON BASICS
  - variable
  - variable assignment
  - keywords in python(32)
  - 3 types of errors
    - 1) syntax error
    - 2) value error
    - 3) indentation error
  - DATA TYPES
    - int,binary,float,complex,str
  - TYPE CONVERSIONS
    - implicit type conversion
    - explicit type conversion
  - OPERATORS IN PYTHON
    - Arthmetic
    - Assignment
    - Boolean
    - Bitwise
    - Comperisional/Realational
    - Logical
    - Membership
    - Identity
    - Operators using print()

- CONDITIONAL STATEMENTS
  - 3 TYPES OF STATEMENTS
  - 1. if
  - 2. else

    - 3. elif

- LOOPING STATEMENTS
    - 2 TYPES OF LOOPING STATEMENTS\
        - 1.for loop
        - 2.while loop

- RANGE()

DAY-3 (20-07-2022)

- LOOPS
    - range()
    - for loop
    - while loop
    - nested loop
- FUNCTIONS
    - 1. predefined
    - 2.userdefined
- STRINGS
    - str.replace()
    - str.count()
    - str.split()
    - str.strip()
    - lower()
    - upper()
    - casefold()
    - ....
- INDEX
    - 1. positive index
    - 2. negitive index
- SLICING
- DATA STRUCTURES
    - 1. lists
    - 2. tuples
    - 3. set
    - 4. dict

day-4 (21-07-2022)

- NUMPY MODULE
    - numpy using array()
    - conversion of string to array
    - conversion of range(values) into array

    - conversion of tuple/list/set into array
    - n dimensional matrix
    - multi dimensional array
    - identity matrix print method
    - ones matrix print method
    - zeros matrix print method
    - full,fill,diag,linespace methods also
    - arange() method
    - reshape() method
    - slicing
- RANDOM
    - np.random.randint(stop)
    - np.random.randint(start,stop)
    - np.random.randint(start,stop,step)
    - np.random.rand()
    - np.random.randd()
- BROADCASTING
    - APPLY ONLY SCALAR QUANTITY OF ARRAYS
    - Arathametic operators using two matrices
- SCIENTIFIC COMPUTATION
    - logarithms and exponetials
- VECTORIZED FUNCTIONS

DAY-5 (22-7-2022)

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