**Questions**

**Instructions: You need to solve any 5 questions within 4 hours using Python. You can use google for your research and can also reach out to us incase of any clarifications.**

1. Take two dates as inputs from user and then calculate the following –
   1. Time elapsed in minutes between them.
   2. Add 60 minutes to the smaller date
   3. Convert the larger date into seconds
   4. List of all functions in Date Time Module in Python
2. Take any number between 1 – 9999 as input from user and print it in words. For Example
   1. Input – 999 Output – Nine hundred Ninety Nine
   2. Input – 2999 Output – Two Thousand Nine hundred Ninety Nine
3. Take any number as input and print a Pythagoras Triangle. For Example, if user enters – 3 then the output will be –

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1. 1

1 2 1

1. Read Data from CSV File named – ‘Stock OHLC dataset’ and then calculate the following -
   1. Calculate daily logarithmic returns,
   2. Total Cumulative Returns and
   3. Returns on date 1-sep-2016
2. Read data from CSV File Named – ‘ML dataset’ and then display the following –
   1. Dimensions of the data set
   2. Number of Columns in the dataset
   3. Name and datatype of each column in the dataset
   4. Maximum and Minimum Number in each Column
   5. Count of UP and Down in Class columns
3. Read data from CSV File Named – ‘ML dataset’ and then display the following –
   1. Sort data based on Class Column
   2. Divide them into different data sets based on values in class columns
   3. Drop Column ATR5 and ATR10
   4. Find Sum and Standard Deviation of all Positive Numbers in MOM5Indx Column
   5. Replace negative values in MOM5Indx with 1000
4. Read data from CSV File Named – ‘ML dataset’ and then display the following –
   1. Sort data in ATR5 column from lowest to highest
   2. Sort data in ATR10 Column from highest to lowest
   3. Save your results in another file named results.