**MA653-COMPUTATIONAL FINANCIAL MODELLING**

**LAB ASSIGNMENT-2 REPORT**

**Prajyot Morey - T21009 (M.Tech CSP)**

**Q\_1.**

Stock Chosen:-

1.ONGC (Oil and Natural Gas Sector)

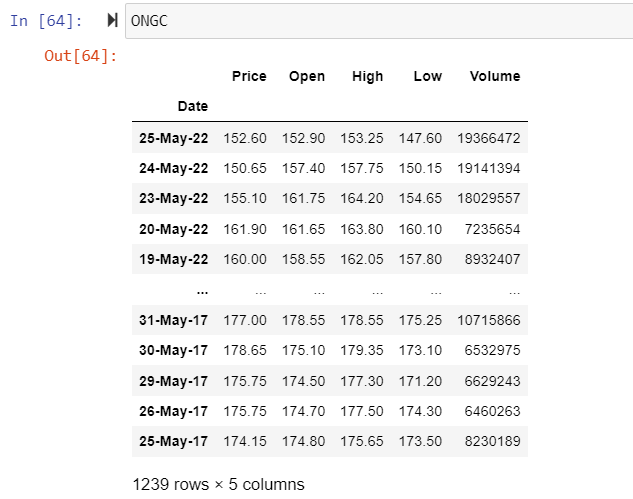
2.TATA Motors (Automotive Sector)

3.Infosys (IT Sector)

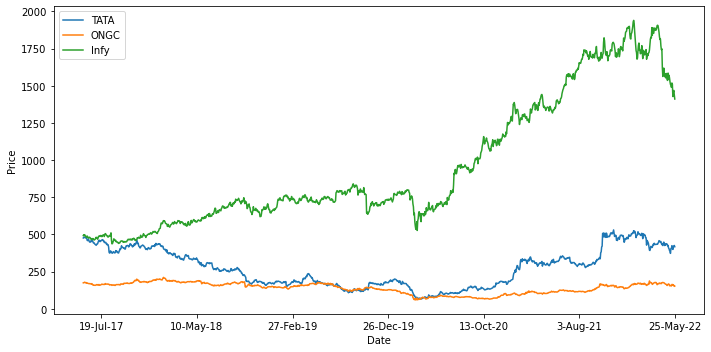
All these 3 Stock are from the different sectors for analyzing how each sector is performing over the year period of 5 years i.e., (25-May-2017 To 25-May-2012). Below are data representations of all three stocks.

1.TATA Motors.



2.ONGC

3.Infosys

* **Price vs. Year Graph of All three Stocks**.
* **Plotting Daily Return stock of each Stock**

Given dataset doesn’t have the Daily Return so we have to Calculate the Daily Return of each Stock by using the following Formula.

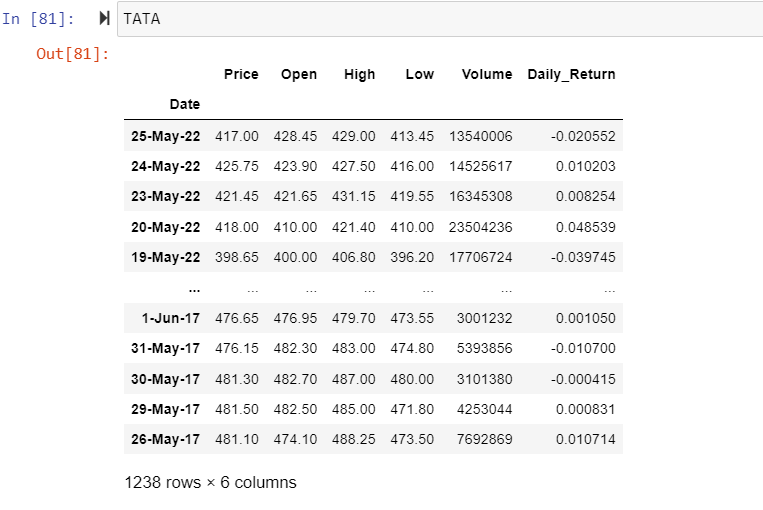
=

= Today`s Price of Stock.

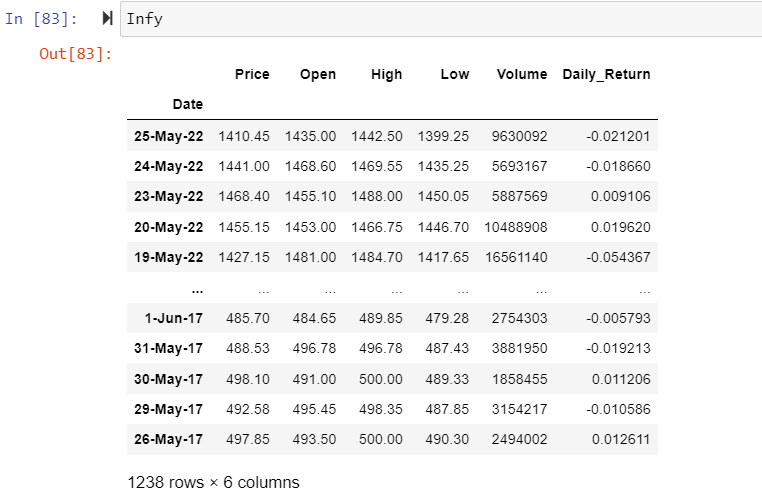
= Yesterday`s Price of Stock.

= Return on day.

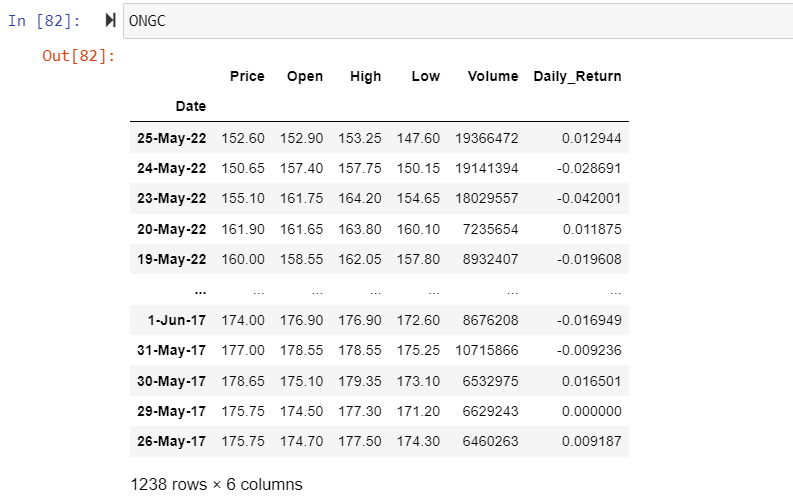
1. Daily Return Calculated Data Set Representation.
2. TATA Motors



1. Infosys

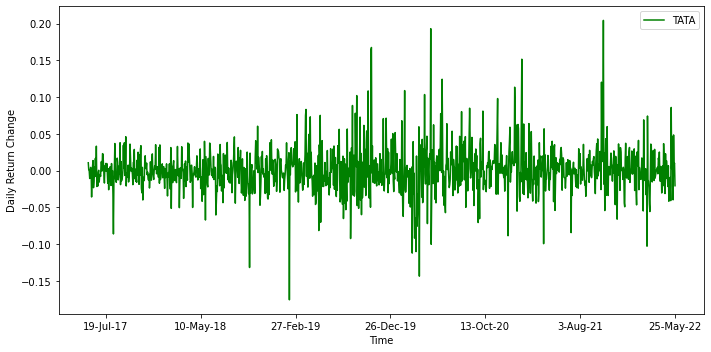


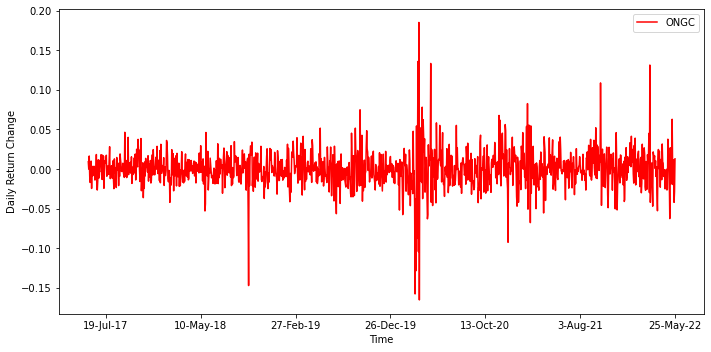
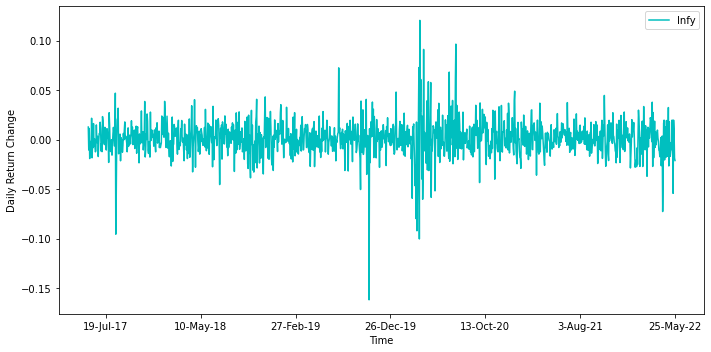
1. ONGC



* **Daily Return plot**

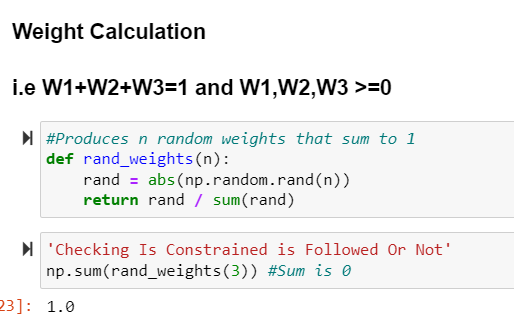
1.TATA Motors



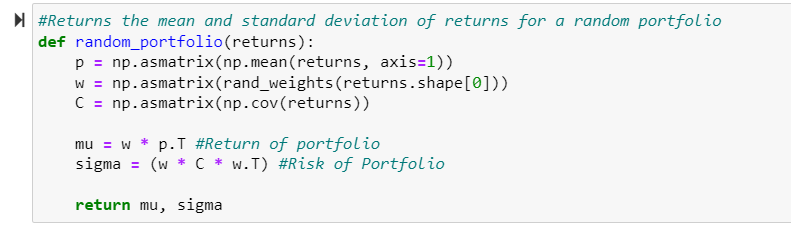
1. ONGC
2. Infosys

**Q\_1\_a:-**

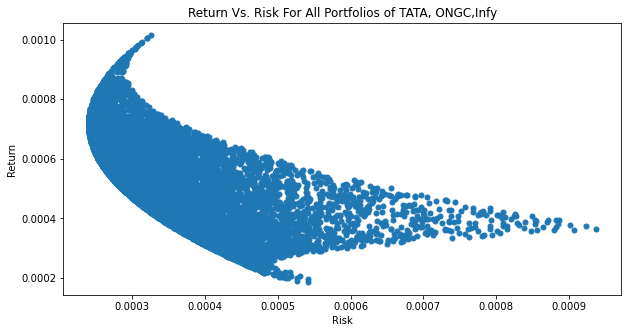
Code Snippet for Random weight generation for 3 Stocks:-



Code Snippet for Calculating Risk and Return:-

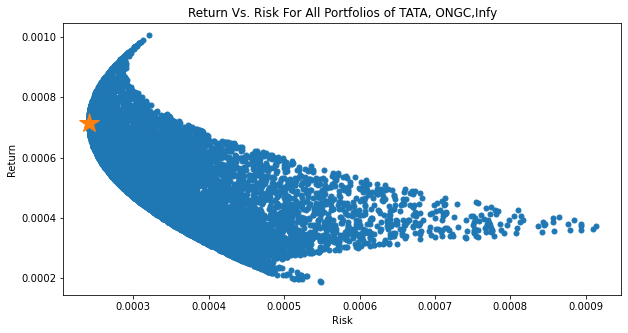


* **Risk vs. Return Plot 3 Stocks.**



**1\_C:-**

Finding Minimum Risk

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