We need to follow the below steps in order to complete Z-Index process.

**Task 1: Scrap Treasury Yield Data from web site and Insert into treasury yield local database table**

* To do That We need to provide the Parameter into the function when we running TreasureyYieldDataScrapnSave.java
* After write console year input, it would save those data which are not in database.

**Task 2: Scrap Volatility Index data from website and save it to the Volatility Index local database Table**

* Run the YahooScrapForVolatilityIndex.java
* There are multiple parameters in scrapping the website.
* Basically, if we don’t want to custom scrapping then all inputs will be empty string.
* Most of the time the options field should be empty to choose historical price data
* Frequency should be empty to get daily data
* There are some output strings which will help to provide input values here
* If you want to scrap certain date range data then provide the date range with certain format.
* It will scrap all the data with providing parameters
* Save data in database Table:
  + Insert method will insert data with delicacy check

**Task 3: Update each row of Volatility Index table data.**

* Just run the UpdateVolatilityIndexData.java
* It will calculate **Spike** and **return** and update each row of Volatility Index.

**Task4: Insert Treasury Yield and Volatility Index data into user\_saved\_portfolio\_timeseries table**

* Run the PortfolioTimeSeriesManager.java
* It would create two static list for two different type user portfolio’s
* Insert all the treasury data for all portfolio’s as well as update rows for percent portfolios by calculating close.
* Insert Volatility index data into the Table.

Completed the whole process of Z-Index