**Report for Stock Analysis for Irish Stock Market.**

I was always fascinated by stock market how it actually works. So, I had a chance now to create my project on stock market. Basically, I had a chance to explore the database for the Irish stock market. So, every investor has to invest somewhere or the other by studying the stock market and the company on which he has to invest. So, we came across an idea where we can actually predict the Irish stock market. Since then we started exploring and learning about Irish stock market and what are the factors that are affects the stock market.

So, we had an idea to scrape the data which is related to Irish Stock Market. I, then found a huge amount of data on the Yahoo Finance where we were able to locate the company name which has invested in Irish Stock market for the past 15 Years. So, we scrapped the data using python and we were successful able to get the necessary information. Using this information which we started creating our data storage project. Once we scrapped the data from the Yahoo Finance Website, we then moved to SQL toll for further loading the data. Here we faced few challenges as we there was a huge amount of data which needed to be stored. So, we started dividing our parts for the project. As a computer Science student, I was very well aware of SQL Language so I was not that difficult for loading the huge data set but then there very few scenarios where you need to focus on. So, we loaded the data and created a data ware house for the project and used ELT. ETL is very efficient in use with performance as well as easiness. So, we created Tables for the dataset and the table were formed.

Therefore, we started analysing using the dataset that what can be used to analyse the increase and decrease in the Irish stock market. As we scrapped the data from the website, we also scrapped the data from the Irish times by using what were the factors which affected the Irish stock market. We came across many factors for example Brexit and so on which affected the Irish stock market. So, using this description we linked up the factor’s vs the Irish Stock market’s Variations for rise and fall. So here we used the star schema which was very efficient for this project. For then the database is loaded we moved to the ETL part which was a bit challenging for us. So, we divided the table among us and started working on the fact table and dimensions tables. We had the data for information in the form of pestle where it included all the Economic, Political, Eni and so on. Then we successfully loaded the ETL and created a data ware for the stocks and moved on to the report section where we used the SSRS Tool and started preparing reports on the basis of the information which affect through the Irish Times. We used 5 reports for displaying the data using date for each stock company. We have created the report in a tabular and matrix format. Then we moved to the XML part where we saw the validation for the dataset we loaded and we used a table and a fact dimension to store the data in the backend. I was new to XML as it was a bit difficult task for me cope up anyways, I learned xml in very different way other than normal. And Neo4j was a boom for me because I was using the tool for the first time so I started exploring Neo4j and started implementing that in our project where we leaned to create nodes and relationship between them. The Queries were quite interesting which invoke a new developer in me. I hope I would continue using Neo4j for a longer time.

Concluding the project, I have learned how to create the tables in the database using SQL management server and load the dataset in it. I also learned a depth about the ETL Process and Fact Dimensions. Reporting was quite easy as we have to just load and connect the data. Neo4j has taught me how you can use the statistical data and relate in them between nodes. Overall, I have learned many informative things which we cannot learn in a real time. This project gave me a real time experience how does the market actually wants and what are the requirement which is needed. I found this project very informative and working as a group it also gave me a chance to explore my ideas which was implemented in this project and a overall experience to work as team. Hence, it a vast topic to cover all the concepts at once but we implemented a few common terms.