**Overview :**

The goal is to create a Module which is used to insert or load the formatted data in Big Query, ensuring an efficient and reliable data management System.

**Technology And Framework :**

*.NET Framework version 4.8.0*

**Package and Related Version used :**

Google.Apis.Auth -> 1.68.0

(Used for Authenticate the Google Cloud Credentials )

Google.Cloud.BigQuery.V2 -> 3.9.0

(Used to Create a Google Cloud BigQuery Client and enable to use big query api in application)

LINQ-to-BigQuery -> 0.7.2 (Optional)

( Used for performing the data manipulation in Big Query with C# )

**Functionality :**

After setup GCP (Google Cloud Platform) Account :

1. Setup a configuration Json file that will contain the following fields
   1. Type
   2. Project\_id
   3. Private\_key\_id
   4. Private\_key
   5. Client\_email
   6. Client\_id
   7. Auth\_uri
   8. Token\_uri
   9. Auth\_provider\_x509\_cert\_url
   10. Client\_x509\_cert\_url
   11. universe\_domain
2. Create a method “LoadDataToBigQuery”

It will work as follows :

1. Creating the GoogleCredentials by reading the above configuration json.
2. Creating the BigQueryClient from Project\_id and credentials.
3. Getting the DataSet object from data\_set\_id name.
4. Get table from table id by creating from BigQueryTable object.
5. Loading and Inserting the data in Table.

3. At last handle all errors with try, catch and finally block in order to continue the code without impact on other functionality.