**NAME**

**COLEGE NUMBER**

**Abstract**

The application of Bsuines ontellgence information systems havesoabn across diffenrt crss orgnisatunal functions. Comaonies and orgnaisatia re spending more more and finanacil resiurces I trying to either r acquire data, protect it or analyse the same information. Its vital thigh to cnsdre the three stages of data ecven as weh devolve deepr intonth discus susrtounfdnug the whoeile syery of BIs systems. The Bi percss takes incto account for difetstages of manbging the data prpcess:

1. Data acaquisuiion
2. Data storage
3. Data manioulatins and anaykyso
4. Data peesbtstains and firesctsing

Opuo to the inceptin of the business appliicatio prgrammig intirdiced by Watsons COBOL, the prgaeimg lnauafes gecevloped atthis era of time did no t focus fully ontosome of the varous applicatons and ppsblities poised by the BI systems, in reality thoug, the shofts was rather focused in the dffent posbbibities that originated from the sogetares that IBM was peodcug ta this time to help iragnisatina sna dcouorations o achieve a given kevel of business solution and servive sprviosn toits customers. Later on such advancements would lete rbat atake over by datascincetis who worled in te aviusous fields and sw the need to make good use of theknowldege and eixeprinece that the had gained working in this industry.Monng firward this era saw the development of dofwtare prgrams that focused on ten deveopement and prictuon of tools that fittend the industry,Some of these tools included FROTRAN DNA SCALA. These tools are stillmin use to date but their inception is a sory that can only be dreivedf orm the opuoneers and engineers who saw the need to incent smehing that indiuvauals, ciprtate and other negineers could adopt into theor dailywork prgrams.

Further, statsitsical problesm were dicvered and engoneers from the varous fileds continued to evelpe and implement other tools tools that could suoppppt other reaercgers and stsudents from this field. It is at thid posint that other sttatsicla analyais tools like Rstuio, IBM studio, Matlab, SATA and STRATA applicatuions. These tools have consistly been userd over the years bby data sceinetis stogenrate very amaaing insights to the ragtet audience and form amogitly of some of the data modelling aplatforms wose appliactions have spanned across Finace, healthcare, education and makekinting.

Another coponnet of the data process is the data storage mechanisms. In order to understand this at depnths, its ccrusicial to also undeyrsrand the length ipn whycg how organisatuon go to keep and imainat their data, keem attnyoon haowever ahs to bedwarn there tyes and eleents of cosnumbg data. Data node also known as data enetryb points act as the funnel upon which incomemnibg data iss derved amd channled into the correct data silo. Data silos are considered as the large stotres upon which fata and informatiojnmayb be stored for future need. Annexample of adata silo us I hekath care where data is stored as it comes ffomr the feld and stired in duffrentc compartements witinthe serevr. This datacan laetr be accessed by adta senginenrs and porto sof its ectsracted by data engineer, mornintired, ecsracted and trained, based on an 80/20 ule where perts of this imformation I sused tn predict isease pattrerns , tendsd and monitors the cutrrent infections and rtreatments in the healthcare industry.

**Drate the data silo adnd wareheouse infogarpha here:**

There are three types of datasbes tahata are consired when storing information within the daatsbase environment:

* Stsructured adtasbess
* Unstrtctured databasesl
* Independt data sysemsts

Sstsyctuerred