DATA WAREHOUSING WITH IBM CLOUD DB2 WAREHOUSE

PROJECT

AGENDA

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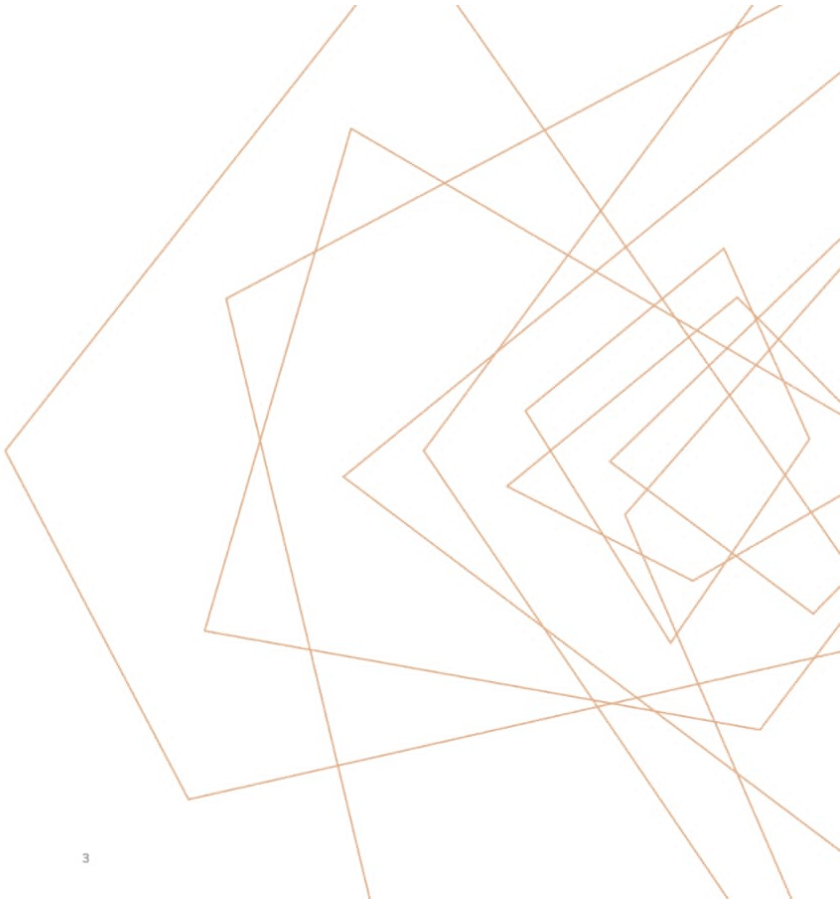
INTRODUCTION ABOUT PROJECT:

- This Project was designed to help organization to manage and analyze large volume of data in a scalable and flexible manner(Db2 warehouse).



KEY POINTS

CLOUD BASED SOLUTION

- db2 warehouse on cloud is hosted on IBM's cloud infrastructure, which mean you don't need to worry about provisioning and maintaining of physical hardware. It offer benefits of cloud scalability ,flexibility and ease management.

DATA INTEGRATION

- It can easily integrate data from various source into Db2 warehouse on cloud. It support data import from source like database ,data lakes ,cloud storage and more.

DATA STORAGE

- The solution provide a high performance, columnar Data store optimized for analytical queries. This type of storage is well suited for data warehousing workload.

SCALABILITY

- Db2 warehouse on cloud can scale up or down based on your needs. You can adjust the resource allocated to your data ware house to accommodate data growth.

SOLUTION

HIGH AVAILABILITY

- Support high availability and disaster recovery option to ensure data availability and reliability

SQL COMPATIBILITY

- Using SQL make easier to user to write queries

COST MANAGEMENT

- IBM cloud provide flexible pricing options, so you can choose the plan that suits your budget

HYBRID CLOUD

- IBM cloud support hybrid cloud deployment, allowing you to connect your premises data source with Db2 warehouse in the cloud

OVERVIEW OF DATA WAREHOUSING INTO IBM CLOUD DB2 WAREHOUSE

INTEGRATED ANALYTICS

- A range of libraries and function helps you to get to the precise insights you need to drive better business outcomes.

COMPATABILITY

- Oracle and Netezza compatibility option make it easy to migrate. Free tooling helps you to convert existing applications.

HYBRID-READY

- Achieve the efficiency of a hybrid data ware house through a common analytical engine that can run advanced analytical against any data source.

SPEED AND SCALE

- For large data set the massively parallel processing(MPP)plans use multiple server to work on the same query simultaneously.

CODING:

1. INSTALL IT USING PIP:

```
Pip install ibm_db
```

2.IMPORT THE LIBRARIES:

```
Import ibm_db
```

3.CONNECT TO DB2 WAREHOUSE ON CLOUD:

```
#Database connection parameter
Conn_str=( “DATABASE=<YOUR_DATABASE_NAME>;”
“HOSTNAME=<YOUR_HOSTNAME>;”
“PORT=<YOUR_PORT>;”
“PROTOCOL=TCPIP;”
“UID=<YOUR_USERNAME>;”
“PWD=<YOUR_PASSWORD>;”)
Conn=ibm_db.connect(conn_str),””,
```

CODING

4.EXECUTE SQL QUERIES:

```
Sql_query= “SELECT*FROM your table”;
Stmt =  ibm_db. exec_immediate(conn,”SELECT*FROM your_table”)
While ibm_db.fetch_row(stmt):
```

5.CLOSE THE CONNECTION:

```
Ibm_db.close(conn)
```

Replace...

‘<YOUR_DATABASE_NAME>’,<YOUR_PORT>’,<YOUR_USERNAME>’,
‘<YOUR_PASSWORD>’

THESE ARE THE CODINGS TO CONNECT WITH DB2 WAREHOUSE.

SUMMARY

- **IBM Db2 warehouse is a cloud based data warehouse solution designed to help organization efficiently manage and analyze their data, making it a valuable tool for data-driven decision-making and business intelligence.**

THANK YOU

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