Cognizant_Logo_Brand_Blue_CMYK_300



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Assignment Document:

<Redshift Architecture\_Table Creation>

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Contents

[Topic: <Creating Table with Distribution STYLE, Sort Key and Compression Encodings> 3](#_Toc384719410)

[Hands-On Exercises 3](#_Toc384719411)

[Hands-On Exercise 1: <Creating Redshift table with distribution style, Sort Key, Compression encodings> 3](#_Toc384719412)

[Guided Assignments 4](#_Toc384719413)

[Guided Assignments 5](#_Toc384719414)

[Guided Assignments 5](#_Toc384719414)

Topic: <Creating Table with various attributes >

### Hands-On Exercises

Hands-On Exercise 1: <Creating Redshift table with different attributes>

Estimated Completion Time: xx Minutes

(xx Marks)

Objective: **To Learn the table creation with Distribution Style, Sort Key & Compression encoding**

Complete the following assignment:

1. Guided Exercise 1
2. Guided Exercise 2
3. Guided Exercise 3
4. Guided Exercise 4

### Guided Assignments

Guided Exercise 1: < Create a table “employee” in database “ProjectXTables” with below specifications.

Problem Statement:

|  |
| --- |
| Create a table “employee” in database “ProjectXTables” with below specifications.  Columns of employee table:   1. Empno – describes the employee number which will hold integer values from 1-1000 2. Deptno – describes the department number of employee and will hold values 10 and 20. 3. Location – describes the work location of the employee. 4. Create the table with Distribution Style as Key for EMPNO. 5. Create the table with compound sort key for EMPNO and DEPTNO 6. Create appropriate compression encodings |

Estimated Completion Time: 10 Minutes

(xx Marks)

Objective: To learn the table creation with Distribution Style Key, Compound Sort key and encoding specifications.

Step 1: Open SQL Interface.

Step 2: Logon to Redshift server with credentials.

Step 3 : To create a table in a particular database, set your default database with the below statement.

Database ProjectXtables;

Step 4 : Create the table with the below statement.

Create table employee

( empno int encode mostly16,

Deptno smallint encode mostly8,

Location varchar(20)

)

distkey (empno)

compound sortkey (empno, deptno);

Summary of this exercise:

You have just learnt:

* Create table statement with Distribution Style Key and compound sortkey clause.

### Guided Assignments

Guided Exercise 2: < Create a table “salary” in database “ProjectXTables” with below specifications.

Problem Statement:

|  |
| --- |
| Create a table “salary” in database “ProjectXTables” with below specifications and check the skewness issue.  Columns of employee table:   1. Empno – describes the employee number which will hold interger values from 1-1000 2. Deptno – describes the department number of employee and will hold values 10 and 20. 3. Salary\_amt – describes the salary amount of the employee for a particular month. 4. Salary\_date – describe the first date of the salary month 5. Create the table with Distribution Style as Key and distkey as EMPNO. 6. Create the table with interleaved sort key for EMPNO and DEPTNO |

Insert below records into Salary table :

|  |  |  |  |
| --- | --- | --- | --- |
| Empno | Deptno | Salary\_amt | Salary\_date |
| 101 | 10 | 4000 | 01-01-2013 |
| 102 | 20 | 4500 | 01-01-2013 |
| 101 | 10 | 4000 | 01-02-2013 |
| 102 | 20 | 4500 | 01-02-2013 |
| 101 | 10 | 4000 | 01-03-2013 |
| 101 | 10 | 4000 | 01-04-2013 |
| 102 | 20 | 4500 | 01-03-2013 |
| 103 | 20 | 4600 | 01-03-2013 |
| 101 | 10 | 4000 | 01-05-2013 |
| 101 | 10 | 4000 | 01-06-2013 |
| 101 | 10 | 4000 | 01-07-2013 |
| 101 | 10 | 4000 | 01-08-2013 |

Estimated Completion Time: 10 Minutes

(xx Marks)

Objective: To learn the table creation with Distribution Style Key, Compound Sort key and encoding specifications.

Step 1: Open SQL Interface.

Step 2: Logon to Redshift server with credentials.

Step 3 : To create a table in a particular database, set your default database with the below statement.

Database ProjectXtables;

Step 4 : Create the table with the below statement.

Create table salary

( empno int distkey,

Deptno int,

Salary\_amt int,

Salary\_date date

)

Diststyle key

Interleaved sortkey (empno, deptno);

Summary of this exercise:

You have just learnt:

* Create table statement with Distribution Style Key and interleave sortkey clause.

### Guided Assignments

Guided Exercise 3: < Create a table “employee” in database “ProjectXTables” with below specifications.

Problem Statement:

|  |
| --- |
| Create a table “employee” in database “ProjectXTables” with below specifications.  Columns of employee table:   1. Empno – describes the employee number which will hold integer values from 1-1000 2. Deptno – describes the department number of employee and will hold values 10 and 20. 3. Location – describes the work location of the employee. 4. Create the table with Distribution style as ALL. |

Estimated Completion Time: 10 Minutes

(xx Marks)

Objective: To learn the table creation with Distribution Style Key, Compound Sort key and encoding specifications.

Step 1: Open SQL Interface.

Step 2: Logon to Redshift server with credentials.

Step 3 : To create a table in a particular database, set your default database with the below statement.

Database ProjectXtables;

Step 4 : Create the table with the below statement.

Create table employee

( empno int,

Deptno int,

Location varchar(20)

)

diststyle all;

Summary of this exercise:

You have just learnt:

* Create table statement with Distribution Style All clause.

### Guided Assignments

Guided Exercise 4: < Create a table “employee” in database “ProjectXTables” with below specifications.

Problem Statement:

|  |
| --- |
| Create a table “employee” in database “ProjectXTables” with below specifications.  Columns of employee table:   1. Empno – describes the employee number which will hold integer values from 1-1000 2. Deptno – describes the department number of employee and will hold values 10 and 20. 3. Location – describes the work location of the employee. 4. Create the table with Distribution style as EVEN. |

Estimated Completion Time: 10 Minutes

(xx Marks)

Objective: Objective: To learn the table creation with Distribution Style Key, Compound Sort key and encoding specifications.

Step 1: Open SQL Interface.

Step 2: Logon to Redshift server with credentials.

Step 3 : To create a table in a particular database, set your default database with the below statement.

Database ProjectXtables;

Step 4 : Create the table with the below statement.

Create table employee

( empno int,

Deptno int,

Location varchar(20)

)

diststyle even;

Summary of this exercise:

You have just learnt:

* Create table statement with Distribution Style Even clause.