SQL

Sql Introduction

- Structured Query Language
- It allows people to access and work with databases
- SQL became a standard of the American National Standards Institute (ANSI) in 1986,

Versions of SQL(Oracle database version)

1

- Oracle 8i , 9i
- Where i stands for Internet
- Starting 1999 and support for XML

2

- Oracle 10g,11g
- Where g stands for Grid Computing
- Starting 2003 and standard servers

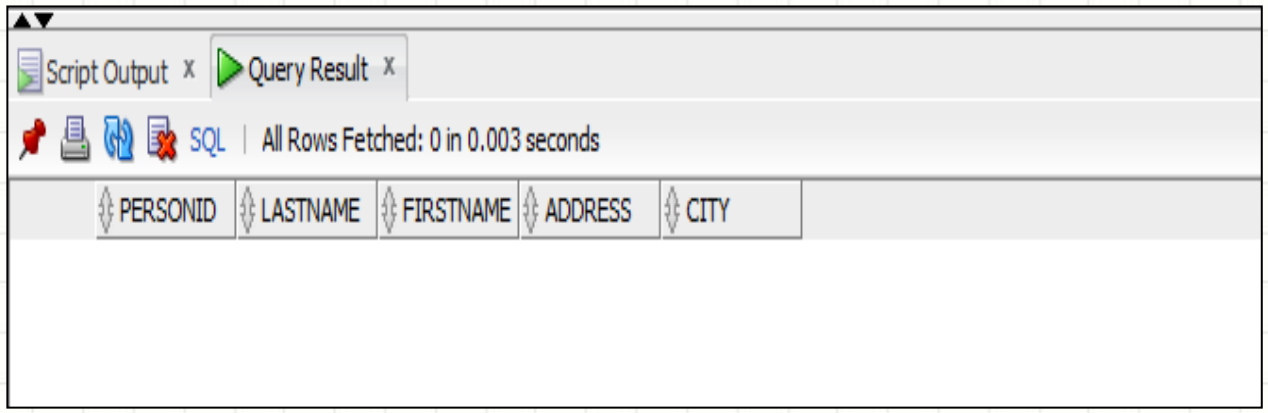
3

- Oracle 12c
- Where c stands for Cloud
- Creation of pluggable databases in a multitenant container database

Purpose of SQL

- SQL is used to access information's or manage information's from the table, By executing queries against database.
- It is used to view information's in a database
- It is used to retrieve data from a database
- It is used to insert information in a database
- It is used to update records in a database
- It is used delete records from a database
- It is used to create new databases
- It is used to create new tables in a database
- It is used create stored procedures in a database
- SQL can set permissions on tables, procedures, and views

- **TO CREATE A TABLE**
- **SYNTAX**
- **CREATE TABLE *table_name* (*column's datatypes*);**
- CREATE TABLE Persons (
- PersonID int,
- LastName varchar(255),
- FirstName varchar(255),
- Address varchar(255),
- City varchar(255);



- **TO ADD COLOUMNS IN A TABLE**
- **SYNTAX**
- **ALTER TABLE *table_name* (*column's datatypes*);**
- ALTER TABLE Persons

  ADD Email varchar(255);

Script Output | Query Result

SQL | All Rows Fetched: 5 in 0.002 seconds

	PERSONID	LASTNAME	FIRSTNAME	ADDRESS	CITY	EMAIL	SALARY	SINCREMENT	BGRP	DOB
1	1A	Raisaranva	Adambakkam	chennai	rai@gmail...	23000	10	O+	2309
2	1V	Vengat	karumandapam	trichy	venkv@g...	23000	10	B+	12041
3	2V	Vengat	karumandapam	trichy	venkv@g...	23000	10	B+	12041
4	3S	Ashok	Adambakkam	chennai	ashok@g...	23000	10	O+	16021
5	4S	Gaia	Adambakkam	chennai	gaia@gm...	23000	10	O+	2509

- **INSERT VALES IN TABLE**
- **SYNTAX**
- **INSERT INTO *table_name* (*column's1*)**

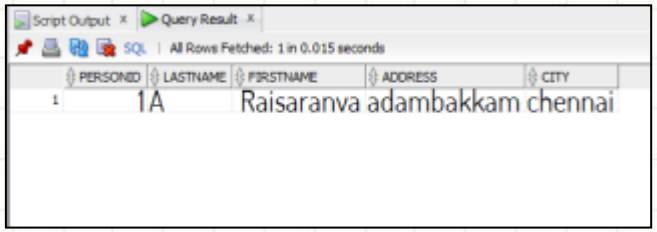
  VALUES (*value's)*;
- INSERT INTO Persons (PersonID,LastName,

  FirstName,Address,City)

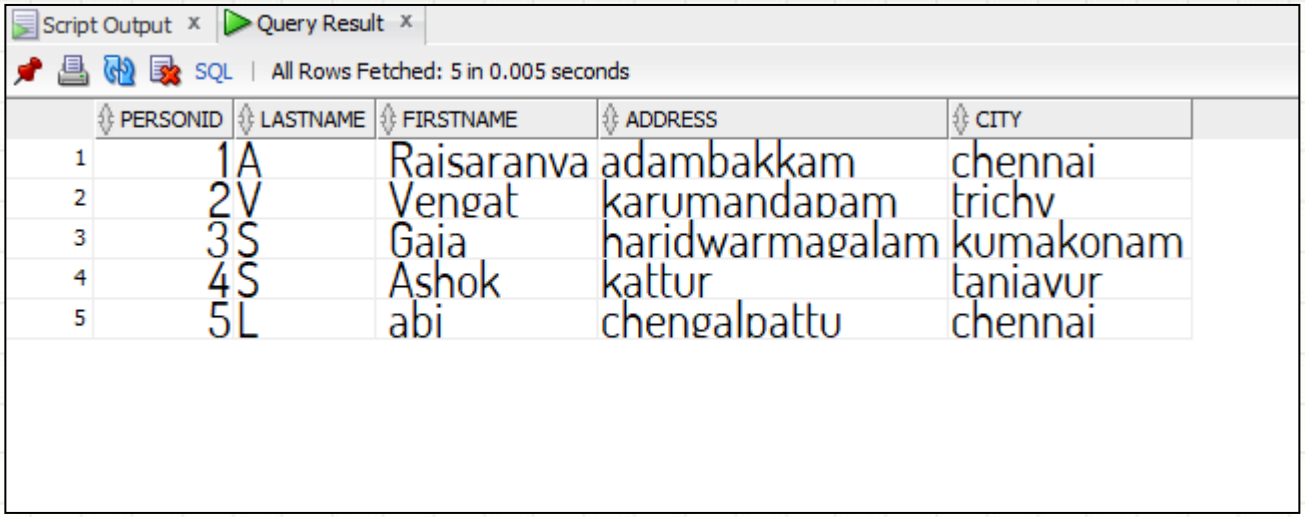
  VALUES ('0001','A','Rajsaranya','adambakkam','chennai');

```
SQL> INSERT INTO Persons ( PersonID,LastName, FirstName,Address,City)
  2  VALUES ('0001','A'', Rajsaranya','adambakkam','chennai');

1 row inserted.
```

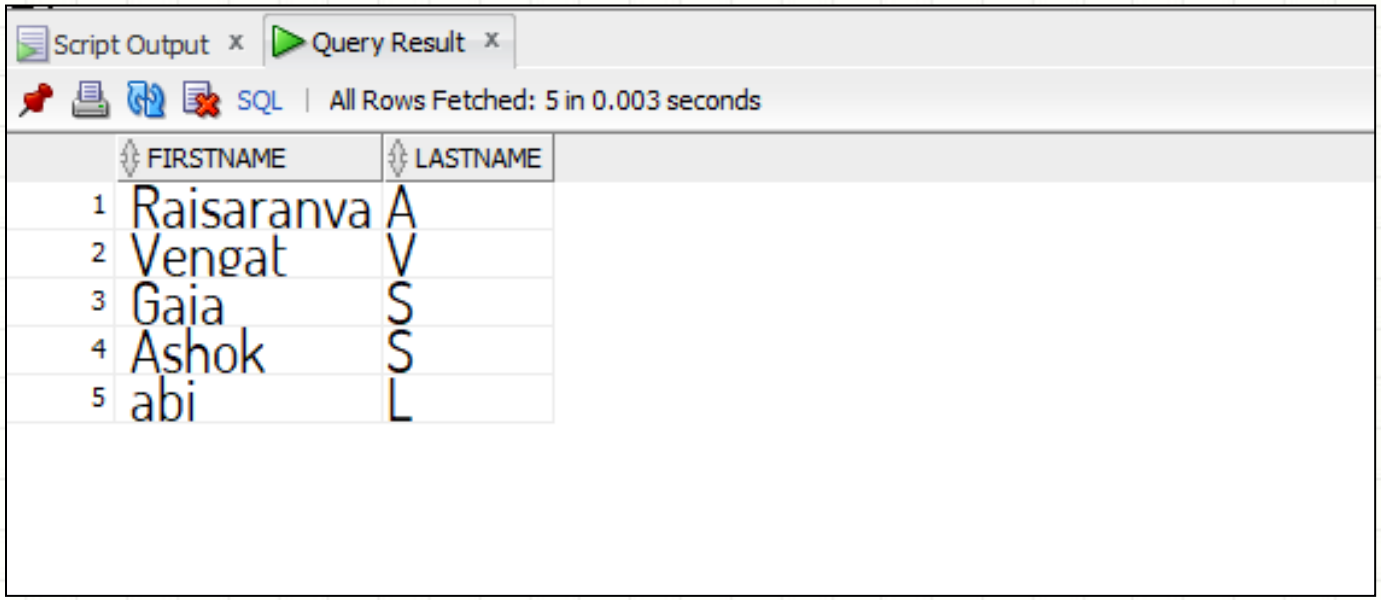


- **TO VIEW ENTIRE TABLE**
- **SYNTAX**
- **SELECT * FROM Tablename;**
- SELECT * FROM Persons;

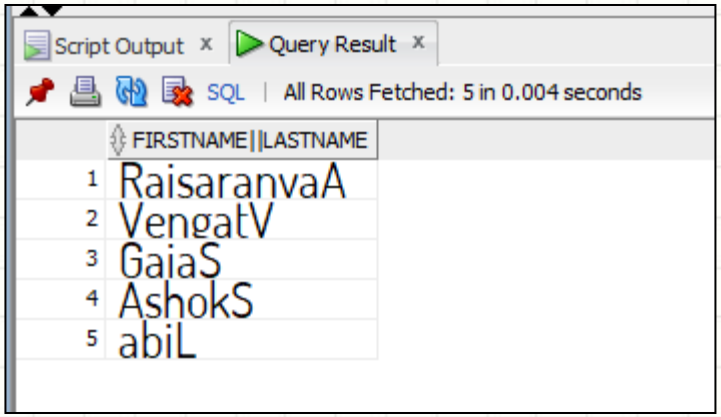


	PERSONID	LASTNAME	FIRSTNAME	ADDRESS	CITY
1	1	A	Raisaranva	adambakkam	chennai
2	2	V	Vengat	karumandapam	trichy
3	3	S	Gaia	haridwarmagalam	kumakonam
4	4	S	Ashok	kattur	taniavur
5	5	L	abi	chengalpattu	chennai

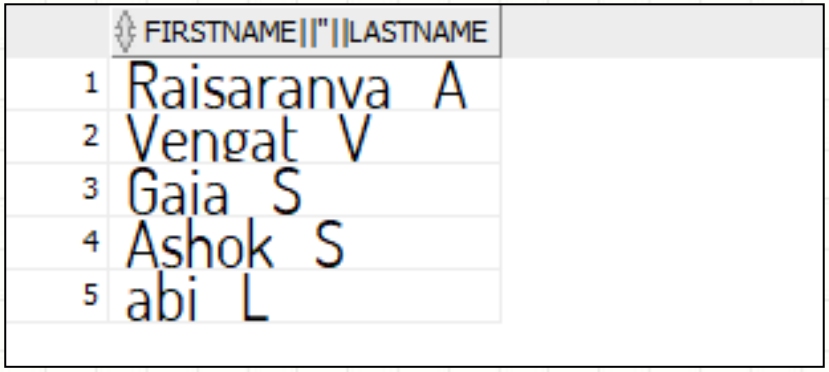
- **TO VIEW PARTICULAR COLOUNM AND ITS VALUES OF THE TABLE**
- **SYNTAX**
- **SELECT Coloumn name FROM Table name;**
- SELECT FirstName ,LastName FROM Persons;



- **TO PERFORM CONCATENATION USING PIPELINE IN THE TABLE**
- **SYNTAX**
- **SELECT Coloumn name1 || Coloumn name 2 FROM Table name;**
- **SELECT FirstName || LastName From Persons;**



- **TO PERFORM CONCATENATION USING PIPELINE IN THE TABLE WITH SPACES**
- **SYNTAX**
- **SELECT Coloumn name1 ||' '|| Coloumn name 2 FROM Table name;**
- **SELECT FirstName || ' ' || LastName From Persons;**

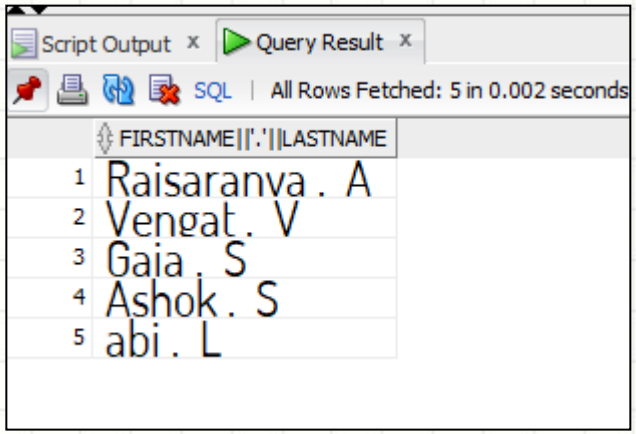


	FIRSTNAME||" "||LASTNAME
1	Raisaranva A
2	Vengat V
3	Gaja S
4	Ashok S
5	abi L

- **TO PERFORM CONCATENATION IN THE TABLE WITH SPACES**
- **SYNTAX**
- **SELECT Coloumn name1 ||**

’ anything to be printed ‘|| Coloumn name 2 FROM Table name;

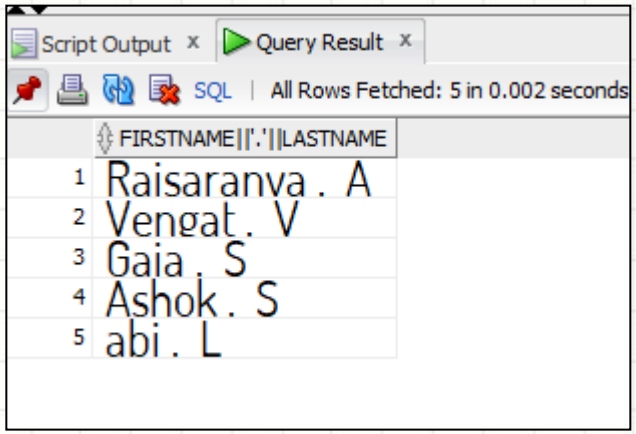
- **SELECT FirstName || ' . '|| LastName From Persons;**



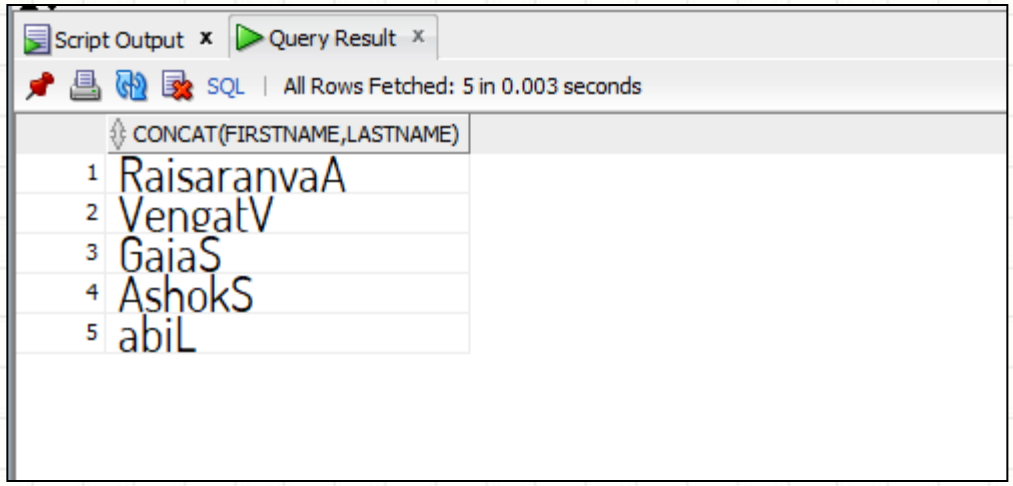
- **TO PERFORM CONCATENATION IN THE TABLE WITH SPACES**
- **SYNTAX**
- **SELECT Coloumn name1 ||**

’ anything to be printed ‘|| Coloumn name 2 FROM Table name;

- **SELECT FirstName || ' . '|| LastName From Persons;**



- **TO CONCAT COLOUMNS IN THE TABLE**
- **SYNTAX**
- **SELECT CONCAT(Column name , coloumn name) from table name;**
- **SELECT Concat(FirstName,LastName) FROM Persons;**



- **TO ADD COLOUMNS IN THE TABLE**
- **SYNTAX**
- **ALTER TABLE *table_name***
  ADD *column_name datatype(value)*;
- **ALTER TABLE Persons**

  ADD Persons_Salary varchar(data);
- ALTER TABLE Persons

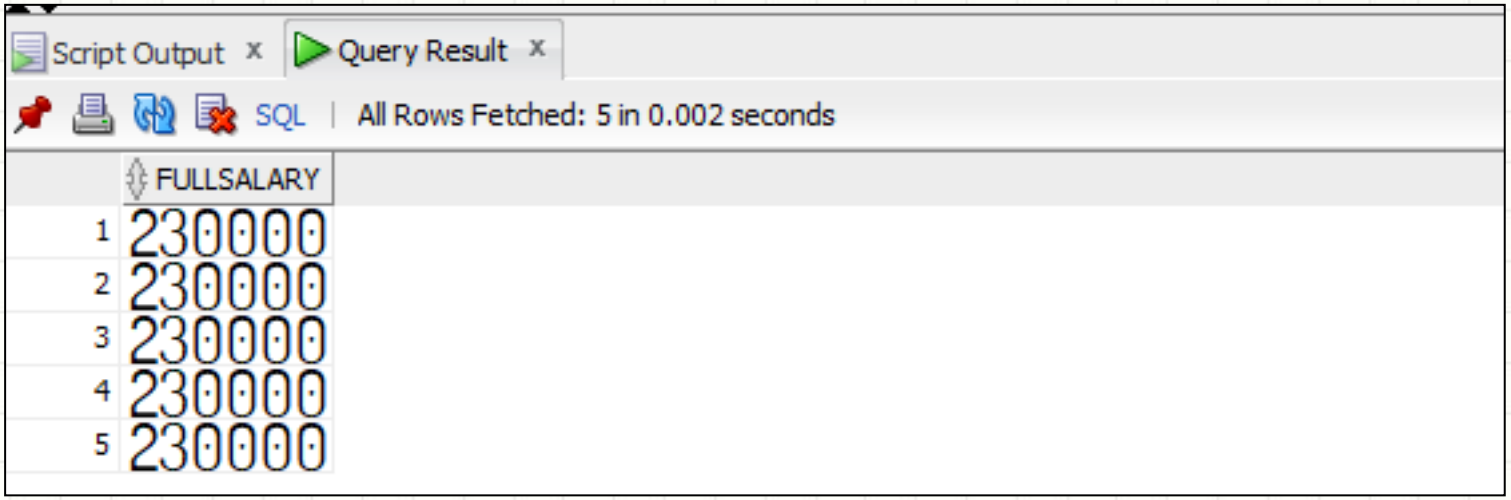
  ADD Persons_Salary varchar(250);

Script Output | Query Result | Query Result 1

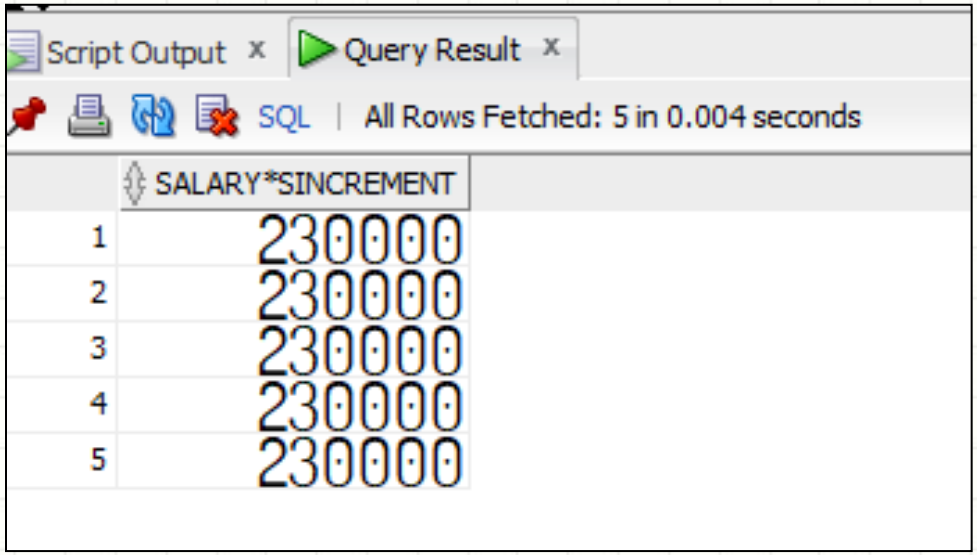
SQL | All Rows Fetched: 5 in 0.004 seconds

	PERSONID	LASTNAME	FIRSTNAME	ADDRESS	CITY	PERSONS_SALARY
1	1	A	Raisaranva	adambakkam	chennai	(null)
2	2	V	Vengat	karumandapam	trichy	(null)
3	3	S	Gaia	haridwarmagalam	kumakonam	(null)
4	4	S	Ashok	kattur	taniavur	(null)
5	5	L	abi	chengalpattu	chennai	(null)

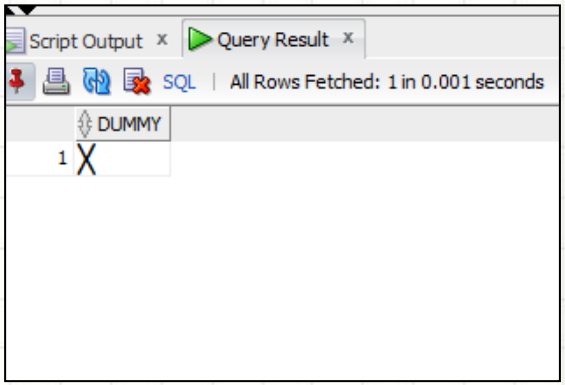
- **TO PERFORM OPERATIONS IN THE TABLE USING ALIAS NAME**
- **SYNTAX**
- **SELECT Coloumn name Operator AS Newcoloumn name FROM Table name;**
- **SELECT Salary * Sincrement AS fullsalary FROM Persons;**



- **TO PERFORM OPERATIONS IN THE TABLE**
- **SYNTAX**
- **SELECT Coloumn name Operator FROM Table name;**
- **SELECT Salary * Sincrement FROM Persons;**



- **TO DUAL TABLE AND OPERATION**
- **SYNTAX**
- **SELECT * from dual;**



- **SELECT perform action from dual;**
- **SELECT 5+2+10-3 from dual;**