University of Central Florida
CGS 2545
Database Concepts

Create Table

- Creating a basic table involves naming the table and defining its columns and each column's data type.

- The SQL **CREATE TABLE** statement is used to create a new table.

Create Table

- Syntax
  - The basic syntax of the CREATE TABLE statement is as follows

```
CREATE TABLE table_name(
    column1 datatype,

    column2 datatype,

    column3 datatype,

    .....

    columnN datatype,

    PRIMARY KEY( one or more columns )
);
```

Create Table

- CREATE TABLE is the keyword telling the database system what to do, create a new table.

- The unique name or identifier for the table follows the CREATE TABLE statement.

- Then in parenthesis comes the list defining each column in the table and what sort of data type it is.

Create Table

```
SQL> CREATE TABLE CUSTOMERS(
    ID    INT                 NOT NULL,
    NAME VARCHAR (20)         NOT NULL,
    AGE   INT                 NOT NULL,
    ADDRESS  CHAR (25) ,
    SALARY    DECIMAL (18, 2),
    PRIMARY KEY (ID)
);
```

Create Table

- Verify if the table has been created successfully by looking at the message displayed by the SQL server, or use the **DESC** command as follows

```
SQL> DESC CUSTOMERS;

+---------+---------------+------+-----+---------+-------+
| Field   | Type          | Null | Key | Default | Extra |
+---------+---------------+------+-----+---------+-------+
| ID      | int(11)       | NO   | PRI |         |       |
| NAME    | varchar(20)   | NO   |     |         |       |
| AGE     | int(11)       | NO   |     |         |       |
| ADDRESS | char(25)      | YES  |     | NULL    |       |
| SALARY  | decimal(18,2) | YES  |     | NULL    |       |
+---------+---------------+------+-----+---------+-------+
5 rows in set (0.00 sec)
```

Create Table

- A copy of an existing table can be created using a combination of the CREATE TABLE statement and the SELECT statement.

- The new table has the same column definitions.

- All columns or specific columns can be selected.

- When creating a new table using an existing table, the new table would be populated using the existing values in the old table.

Create Table

- Syntax
  - The basic syntax for creating a table from another table is as follows

```
CREATE TABLE NEW_TABLE_NAME AS

    SELECT [ column1, column2...columnN ]

    FROM EXISTING_TABLE_NAME

    [ WHERE ]
```

Create Table

```
SQL> CREATE TABLE SALARY AS
    SELECT ID, SALARY
    FROM CUSTOMERS;
```

```
+----+----------+
| ID | SALARY   |
+----+----------+
|  1 |  2000.00 |
|  2 |  1500.00 |
|  3 |  2000.00 |
|  4 |  6500.00 |
|  5 |  8500.00 |
|  6 |  4500.00 |
|  7 | 10000.00 |
+----+----------+
```