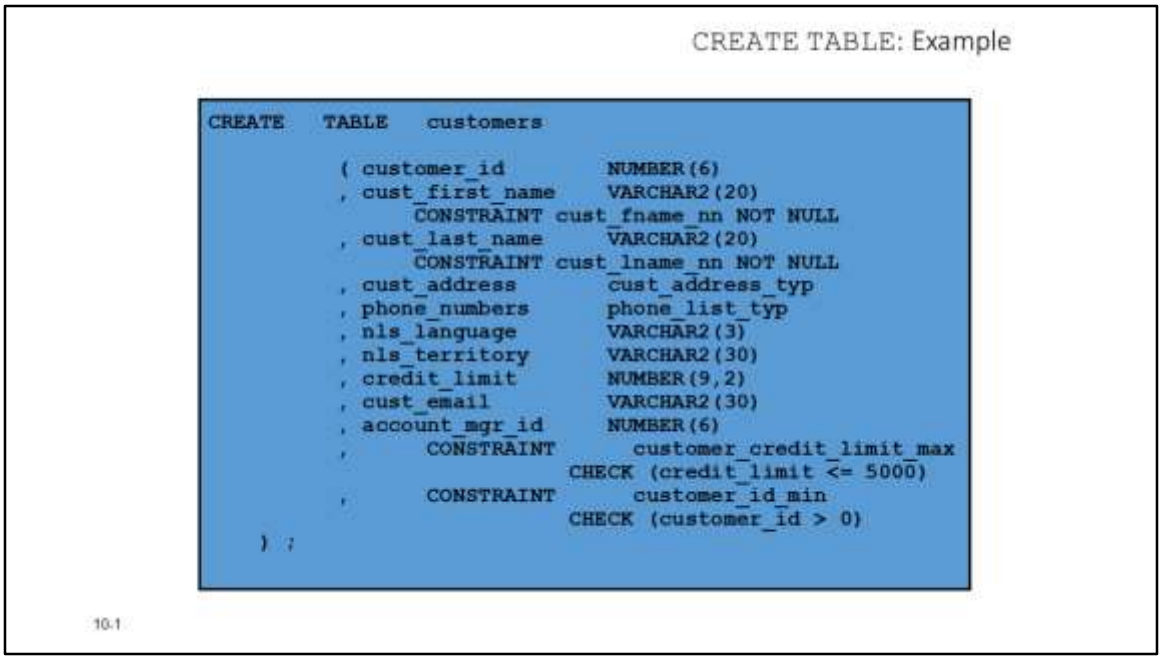
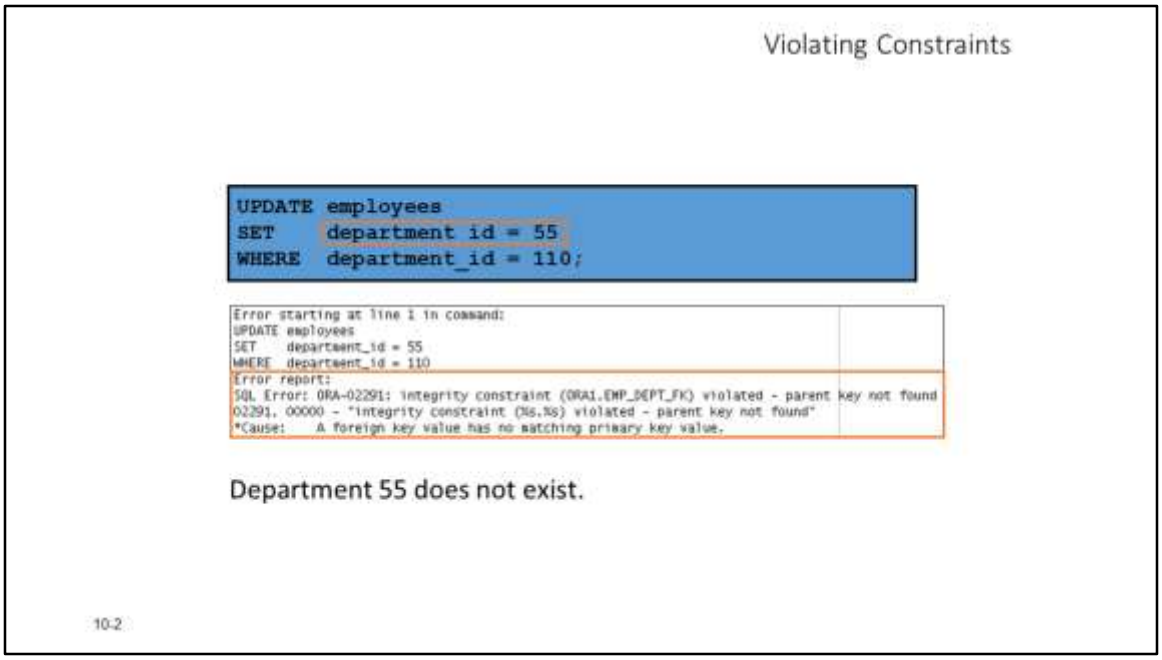



CREATE TABLE: Example

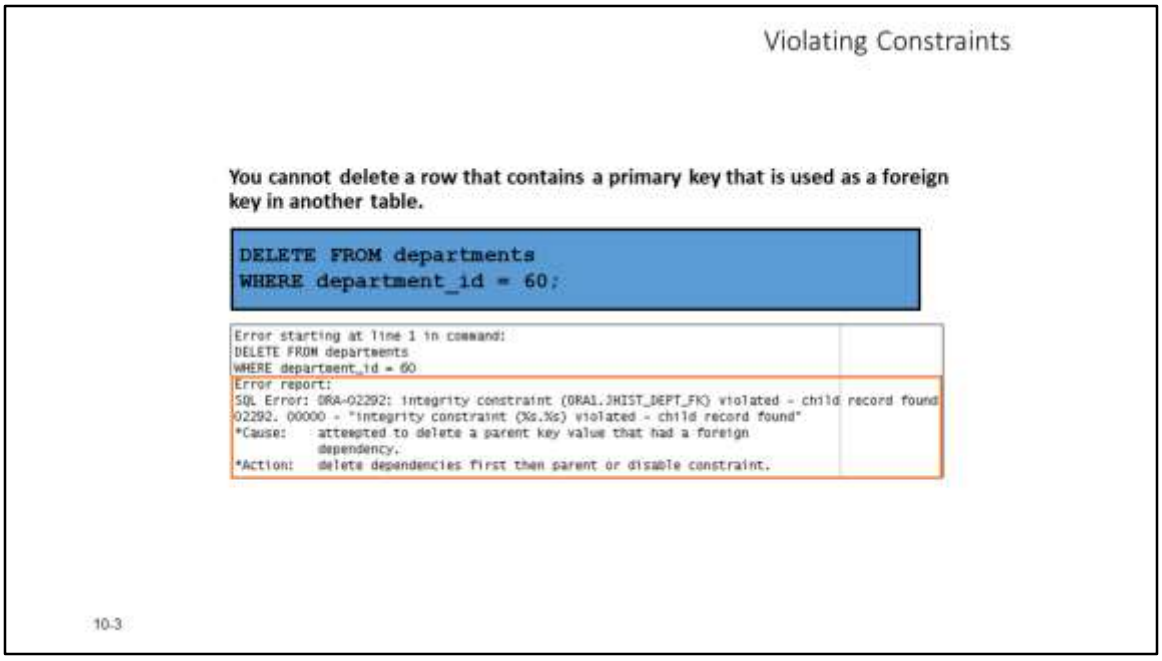
The example in the slide shows the statement that is used to create the CUSTOMERS table in the OR schema.




Violating Constraints

When you have constraints in place on columns, an error is returned if you try to violate the constraint rule. For example, if you try to update a record with a value that is tied to an integrity constraint, an error is returned.

In the example in the slide, department 55 does not exist in the parent table, `DEPARTMENTS`, and so you receive the "parent key not found" violation `ORA-02291`.




Violating Constraints (continued)

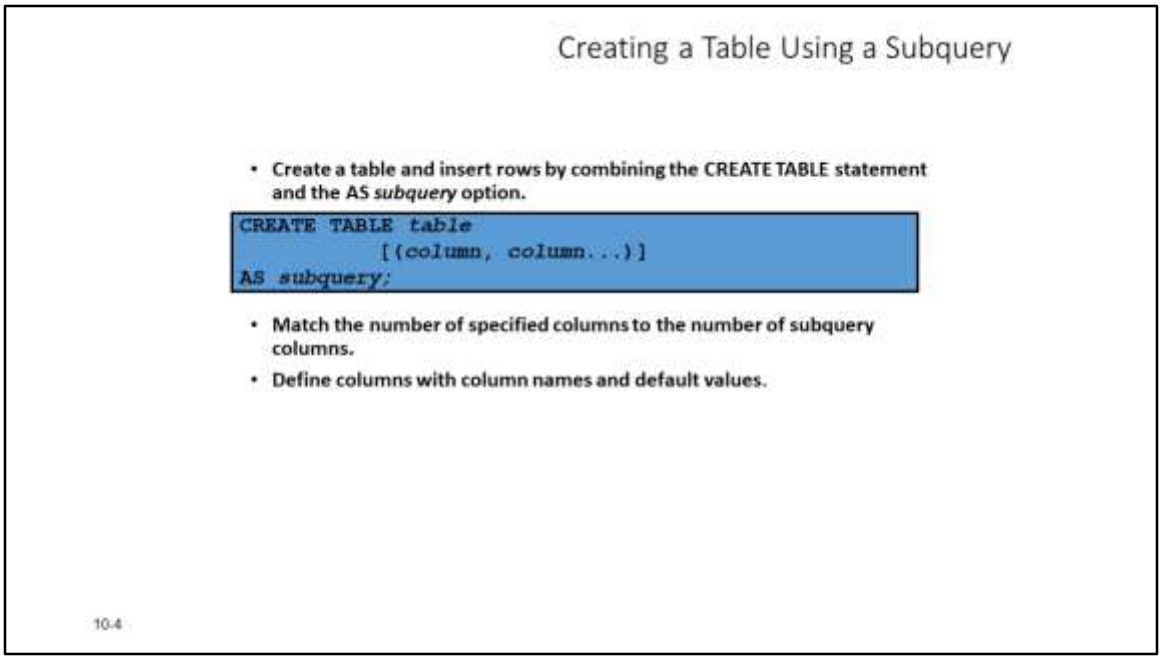
If you attempt to delete a record with a value that is tied to an integrity constraint, an error is returned.

The example in the slide tries to delete department 60 from the `DEPARTMENTS` table, but it results in an error because that department number is used as a foreign key in the `EMPLOYEES` table. If the parent record that you attempt to delete has child records, you receive the "child record found" violation `ORA-02292`.

The following statement works because there are no employees in department 70:

```
DELETE FROM  departments
WHERE department_id = 70;
```

```
1 rows deleted
```




Creating a Table Using a Subquery

A second method for creating a table is to apply the `AS subquery` clause, which both creates the table and inserts rows returned from the subquery.

In the syntax:

| | |
|---|---|
| *table* | Is the name of the table |
| *column* | Is the name of the column, default value, and integrity constraint |
| *subquery* | Is the SELECT statement that defines the set of rows to be inserted into the new table |

**Guidelines**

The table is created with the specified column names, and the rows retrieved by the SELECT statement are inserted into the table.

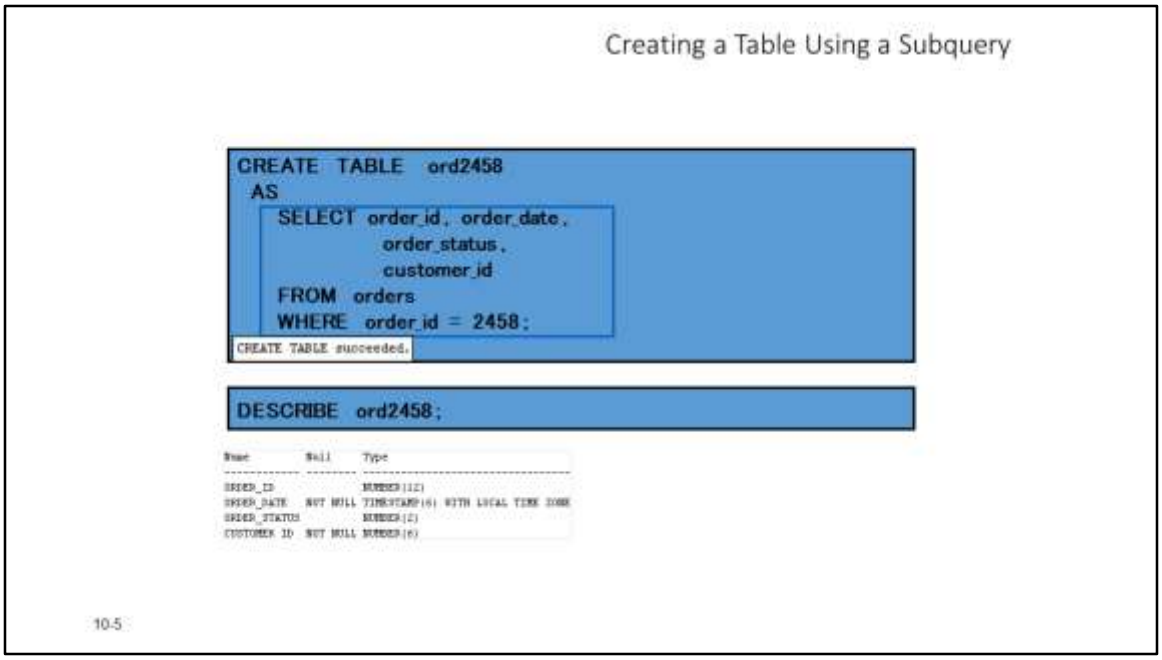
The column definition can contain only the column name and default value.

If column specifications are given, the number of columns must equal the number of columns in the subquery SELECT list.

If no column specifications are given, the column names of the table are the same as the column names in the subquery.

The column data type definitions and the NOT NULL constraint are passed to the new table. Note that only the explicit NOT NULL constraint will be inherited. The

`PRIMARY KEY` column will not pass the `NOT NULL` feature to the new column. Any other constraint rules are not passed to the new table. However, you can add constraints in the column definition.




Creating a Table Using a Subquery (continued)

The example in the slide creates a table named `ORD2458`, which contains details of the order with ID 2458. Notice that the data for the `ORD2458` table comes from the ORDERS table.

You can verify the existence of a database table and check the column definitions by using the `DESCRIBE` command.

```
Error starting at line 1 in command:
CREATE TABLE  dept80
  AS     SELECT  employee_id, last_name,
            salary*12 ,
            hire_date□    FROM    employees    WHERE   department_id = 80
Error at Command Line:3 Column:18
Error report:
SQL Error: ORA-00998: must name this expression with a column alias
00998. 00000 -  "must name this expression with a column alias"
*Cause:
*Action:
```