

Below are all the **types of actions** you can take with DDL broken out by component

		Components of a table				
		Table	Column	Data Type	Column Constraint	Table Constraint
Actions you can take	Create	<p>You can create a table using the CREATE TABLE command. (pg.315 - Examples 1,2,3)</p>	<p>You create columns as part of the table creation process when using the CREATE TABLE command. (pg.315 - Examples 1, 2, 3).</p> <p>You can also “ADD” a column to an existing table as part of the ALTER TABLE command. (pg.323 – Example 1)</p>	<p>N/A - Technically you don't "create" a data type. Rather you are required to "define" it for each column when you create your table. (pg.315 - Examples 1,2,3)</p>	<p>You can create constraints on a columns when using CREATE TABLE command. Common types are <i>NOT NULL</i>, <i>Unique</i>, <i>Default</i>, <i>Primary Key</i>, and <i>Check</i>. While not always required, you can give a constraint a unique name which makes it easier to edit it later and in error handling (pg.317 - Example 1&amp;2, pg.321 – Example 1)</p> <p>You can also add constraints to an existing table using ALTER TABLE command (pg.325 – Example 7, 8). Note: Oracle requires you ADD <i>unique</i> constraints but to add <i>not null</i> constraint you use MODIFY column command.</p> <p>Constraints are enabled by default when they are created but you can created constraints in disabled state too in case you're not ready for them to be enabled (pg.325 – Example 3)</p>	<p>You can create/name a table constraint when you use CREATE TABLE. If a constraint involves two or more columns, you must define at <i>table level</i>. Common table constraints that you can create are: <i>Composite PK</i> (pg.317 Example 4), <i>Foreign Key</i> (pg.319 Example 2), and <i>Check</i> (pg.321 Example 2)</p> <p>You can also ADD constraints to an existing table using ALTER TABLE command (pg.325 – Example 1,3,6)</p>
	Edit	<p>You use the ALTER TABLE command to make edits to a table's columns, column data types, or constraints. (pg.323 – All examples)</p> <p>You can also RENAME a table (pg.327)</p>	<p>You can MODIFY a column's max length or default value with ALTER TABLE (pg.323 – Example 3). You can change a column's name when you ALTER a table. (<a href="#">Example</a>).</p>	<p>You can MODIFY a column's data type when you ALTER a table. (pg.323 – Example 4).</p>	<p>There technically isn't a “modify constraint” command with the exception of using MODIFY to change a column's default value (pg.323 – Example 5). If you want to edit a constraint it's easier to DROP it and then recreate it with ADD command.</p> <p>You can ENABLE or DISABLE a constraint when you ALTER a TABLE. (pg.325 Example 4,5)</p>	<p>There technically isn't a “modify constraint” command. If you want to edit a constraint it's easier to DROP it and then recreate it with ADD command.</p> <p>You can ENABLE or DISABLE a constraint when you ALTER a TABLE. (pg.325 Example 4,5)</p>
	Delete	<p>You can DROP a table which is the same as deleting it. You can also TRUNCATE a table which purges it of data but doesn't delete it. (pg.327)</p>	<p>You can DROP a column when using the ALTER TABLE command. (pg.323 – Example 2)</p>	<p>N/A - Since every column must have a data type defined, there would never be a case where you'd want to “delete” a data type. You can modify a data type.</p>	<p>You can DROP a constraint from column when you ALTER a table. To do so, reference the name of the constraint. (pg.325 - Example 2)</p>	<p>You can DROP a constraint from column when you ALTER a table. To do so, reference the name of the constraint. (pg.325 - Example 2)</p>

Below are **practice scenarios** to go over for each action you can take by component.

- Create table with column-level constraints
  - Create a table called with multiple columns of varying data types and column constraints. Add data to see if constraints work as expected.
- Creates tables with table-level constraints
  - Create a new table with that has a composite key that includes the PK from the original table and foreign key to original table. Add data to see if composite key works as expected.
  - Create a table with check constraints. Add data to see if the check constraint works as expected.
- Edit a table
  - Change the name of a table
  - Change a column name (Note: An example is linked above and not in the book). Refresh schema in "Connections" panel on the left to see if column name changed.
  - Change the length of a column. e.g. VARCHAR(100) to VARCHAR(50). See if length constraint works.
  - Change a column's data type. e.g. Number to VARCHAR
  - Add a new column with a default constraint. Insert data to see if default value works.
  - Edit a table column by modifying the default constraint. Insert data to see if new default value works.
- Deleting
  - Drop a constraint
  - Drop a column
  - TRUNCATE a table
  - Drop a table