

### Actions to check if constraints are violated

	Key constraint	Entity Integrity Constraint	Referential Integrity Constraint
Semantics	Unique values in keys	NULL not allowed in primary key	Foreign key value: NULL or refers an existing value
insert	Make sure the primary key of the new tuple doesn't exist in the table	All attributes of primary key in the new tuple doesn't contain NULL	<ol style="list-style-type: none"> <li>1. Identify all foreign keys in the table</li> <li>2. Understand which primary key (typically in another table) the foreign key refers to</li> <li>3. For each foreign key in the new tuple, make sure its value is NULL or refers to an existing value</li> </ol>
delete			<ol style="list-style-type: none"> <li>1. Find out all foreign keys that refers to the primary key of the table</li> <li>2. For each tuple deleted from the table, check if its value appears in any of these foreign keys</li> </ol>
Update	Modify value of primary key: check new value of primary key like we do in insert operation	Modify value of primary key: check new value of primary key is not NULL	<p>Modify value of foreign key: similar to we did in insert operation</p> <p>Modify value of primary key: check the OLD value of primary key to make sure it is not referred anywhere, just like we did in delete</p>

If update attributes other than key, primary key, or foreign key, these constraints are not violated