**CREATE Commands only**

**Indexes used for optmizing the database schema in general:**

CREATE INDEX Index1 on film\_category USING BTREE (film\_id);

CREATE INDEX Index2 on film\_actor USING BTREE (actor\_id);

CREATE INDEX Index3 on rental USING BTREE(customer\_id );

CREATE INDEX Index4 on rental USING HASH (inventory\_id);

CREATE INDEX Index5 on inventory USING BTREE (film\_id);

**Query1:**

CREATE INDEX film\_film\_id\_tree on film USING BTREE(film\_id ) where film.title like 'A%'

**QUERY2:**

CREATE INDEX actor\_last\_name\_tree on actor USING BTREE(actor\_id) WHERE actor.last\_name like 'D%';

**QUERY3:**

CREATE INDEX actor\_last\_name\_tree on actor USING BTREE(actor\_id) where actor.last\_name like '%a%';

**Query 4:**

CREATE INDEX customer\_first\_name on customer USING BTREE(first\_name ASC);

CREATE INDEX customer\_active on customer USING BTREE(active);

**Query 5:**

CREATE INDEX customer\_first\_name on customer USING BTREE(first\_name ASC) WHERE last\_name like 'A%';

CREATE INDEX customer\_active on customer USING BTREE(active);

**QUERY6:**

CREATE INDEX customer\_last\_name on customer USING BTREE(customer\_id ) where customer.last\_name like 'A%';

**QUERY7:**

CREATE INDEX customer\_last\_name on customer USING BTREE(customer\_id) where customer.last\_name not like 'A%;

**QUERY8:**

CREATE INDEX payment\_rental\_id\_hash on payment USING HASH (rental\_id);

CREATE INDEX payment\_amount\_hash on payment USING HASH (amount);

**QUERY9:**

CREATE INDEX rental\_inventory\_id\_tree on rental USING BTREE (inventory\_id);

CREATE INDEX payment\_rental\_id\_hash on payment USING HASH (rental\_id);

**QUERY 10:**

CREATE INDEX film\_film\_description ON film USING HASH(description);

**QUERY11:**

CREATE INDEX category\_category\_name ON category using HASH(name);

**QUERY12:**

CREATE INDEX actor\_last\_name\_tree on actor USING BTREE (last\_name) ;

**Query13:**

CREATE INDEX film\_title\_hash on film USING HASH (title);

Film\_title\_hash index let us access records that has title ‘HUNCHBACK IMPOSSIBILE’ in 0(1)

**Query14:**

**Query15:**

CREATE INDEX customer\_active\_tree on customer USING BTREE (active);

**Query16:**

CREATE INDEX customer\_address\_id\_tree on customer USING BTREE (address\_id);

CREATE INDEX address\_district\_hash on address USING HASH (district);

**Query17:**

CREATE INDEX film\_title\_tree on film USING BTREE (title) WHERE title LIKE 'K%'OR title LIKE 'Q%';