

CRUD-1

* Agenda :-

- what is CRUD?
- Sakilla Database over view
- Create
 - Insert
- Read
 - SELECT
 - DISTINCT
 - Print constant values using SELECT
 - Operations on columns
 - Inserting data from another table
 - WHERE clause
 - AND / OR / NOT
 - IN operator
- Practical

⊛ What is CRUD?

C → Insert / create
R → Read
U → update
D → Delete

⊛ sakila Dataset overview :-

↓
video rental store
dataset

⊛ CREATE :-

STATEMENT → INSERT

```
INSERT INTO {table-name}
{column1, column2, ...}
VALUES
(..., ..., ..., ..., ...),
(..., ..., ..., ..., ...),
(..., ..., ..., ..., ...);
```

⊗ Read :-

STAMENT :- SELECT

Pseudo code :-

```
ans = [ ]
```

```
table = [ { }, { }, { }, ... ]
```

```
for each row in film:  
    ans.add(row)
```

// FROM

```
filtered-ans = [ ]
```

```
for each row in ans: // Projection  
    filtered-ans.add(row['rating'],  
                      row['release_year'])
```

```
unique-ans = set(filtered-ans) // Distinct  
return unique-ans;
```

⑧ Select statement to print constant values

```
select 1;  
select "Hello world";
```

⑧ WHERE Clause:-

↳ synonymous to "if"

```
select *  
from film  
where rating = 'PG-13';
```

* Pseudo code:-

ans = []

table = [{}, {}, {}, ...]

// FROM

for row in table:

// WHERE

if row matches (cond? in where):

ans.add (row)

filtered_ans = []

// SELECT

for each row in ans:

filtered_ans.add (row ['rating'])

// DISTINCT

unique_ans = set (filtered_ans)

return unique_ans;



AND/OR/NOT :-

and	or	not
&&		!

AND OR NOT



```
SELECT *  
from film  
where rating = 'PG-13'  
AND release-year = 2006;
```

```
SELECT *  
from film  
where rating = 'PG-13'  
OR release-year = 2006;
```

```
SELECT *  
from film  
where rating != 'PG-13';
```

Different ways to write NOT!

① !=

② <>

③ NOT

```
SELECT *  
FROM film  
WHERE NOT rating = 'PG-13';
```

④ IN operator :-

```
{  
  select *  
  from film  
  where rating = 'PG-13'  
  OR rating = 'R'  
  OR rating = 'PG';  
}
```

```
select *  
from film  
where rating IN ('PG', 'R', 'PG-13');
```

select *
from film
where rating NOT IN (. . .);

where NOT rating in (. . .);