# CUNEF
### UNIVERSIDAD

# DATABASE SYSTEMS COURSE 2021/2022

## SESSION 6

# SESSION 6

- **NULL TREATMENT**
- OR OPERATOR
- DATA INSERTION FROM QUERIES

# NULL TREATMENT

## ONE NULL value checking Syntax

**MySQL**

```
SELECT IFNULL(Value1,Value2)
FROM table
```

**Oracle**

```
SELECT NVL(Value1,Value2)
FROM table
```

# NULL TREATMENT

## ONE NULL value checking Example

**MySQL**

```sql
SELECT datecrash, location, summary,
IFNULL(summary, location)
FROM crash
WHERE location = 'Newark, New Jersey';
```

| datecrash | location | summary | ifnull(summary; location) |
|-----------|----------|---------|---------------------------|
| 3/30/1920 | Newark, New Jersey | {null} | Newark, New Jersey |
| 4/10/1920 | Newark, New Jersey | {null} | Newark, New Jersey |
| 3/17/1929 | Newark, New Jersey | The plane ... | The plane was making the last of a number of sightse... |
| 1/14/1933 | Newark, New Jersey | Went into a... | Went into a vertical bank and crashed and burned. |
| 4/18/1979 | Newark, New Jersey | Tail rotor s... | Tail rotor separated in flight shortly after takeoff. The... |
| 3/30/1983 | Newark, New Jersey | While atte... | While attempting to land, the cargo plane came in too... |

**Oracle**

```sql
SELECT datecrash, location, summary,
NVL(summary, location)
FROM crash
WHERE location = 'Newark, New Jersey';
```

| | DATECR... | LOCATION | SUMMARY | NVL(SUMMARY,LOCATION) |
|---|-----------|----------|---------|------------------------|
| 1 | 3/17/1929 | Newark, New Jersey | The plane was ... | The plane was making t |
| 2 | 3/30/1920 | Newark, New Jersey | (null) | Newark, New Jersey |
| 3 | 4/10/1920 | Newark, New Jersey | (null) | Newark, New Jersey |
| 4 | 1/14/1933 | Newark, New Jersey | Went into a ve... | Went into a vertical b |
| 5 | 3/30/1983 | Newark, New Jersey | While attempti... | While attempting to la |
| 6 | 4/18/1979 | Newark, New Jersey | Tail rotor sep... | Tail rotor separated i |

# NULL TREATMENT

## SEVERAL NULL values checking Syntax

**MySQL/Oracle**

```
SELECT COALESCE(Field1,Field2,Field3)
FROM table
WHERE Field1 = Value1


NOTE: COALESCE looks for the first NOT NULL argument.
```

# NULL TREATMENT

## SEVERAL NULL values checking example

**MySQL/ Oracle**

```sql
SELECT summary, location, operator,
COALESCE(summary, location, operator)
FROM crash WHERE type = 'Junkers JU-53/3m';
```

| | SUMMARY | LOCATION | OPERATOR | COALESCE(SUMMARY,LOCATION,OPERATOR) |
|---|---|---|---|---|
| 1 | (null) | (null) | Deutsche Lufthansa | Deutsche Lufthansa |
| 2 | Missing ... | (null) | (null) | Missing on an evacuation flight fro... |

# NULL TREATMENT

## SEVERAL NULL values checking Example

**MySQL/ Oracle**

```sql
SELECT summary, location, operator,
COALESCE(summary, location, 'No detail')
FROM crash WHERE type = 'Junkers JU-53/3m'
```

| | SUMMARY | LOCATION | OPERATOR | COALESCE(SUMMARY,LOCATION,'NODETAIL') |
|---|---|---|---|---|
| 1 | (null) | (null) | Deutsche Lufthansa | No detail |
| 2 | Missing on an ... | (null) | (null) | Missing on an evacuation flight fr |

## IS NULL/IS NOT NULL Syntax

**MySQL/Oracle**

- **SELECT** *Field1,Field2,Field3*
  **FROM** *table*
  **WHERE** *Field1* **IS NULL**

- **SELECT** *Field1,Field2,Field3*
  **FROM** *table*
  **WHERE** *Field1* **IS NOT NULL**

## IS NULL/IS NOT NULL Example

### MySQL/Oracle

- **SELECT** datecrash, time, location
  **FROM** crash
  **WHERE** time **IS NOT NULL**;

| datecrash | time | location |
|---|---|---|
| 17/09/1908 0:00:00 | 17:18 | Fort Myer, Virginia |
| 12/07/1912 0:00:00 | 6:30 | AtlantiCity, New Jersey |
| 09/09/1913 0:00:00 | 18:30 | Over the North Sea |
| 17/10/1913 0:00:00 | 10:30 | Near Johannisthal, Germany |
| 05/03/1915 0:00:00 | 1:00 | Tienen, Belgium |
| 03/09/1915 0:00:00 | 15:20 | Off Cuxhaven, Germany |
| 24/09/1916 0:00:00 | 1:00 | Billericay, England |

### MySQL/Oracle

- **SELECT** datecrash, type, location
  **FROM** crash
  **WHERE** type **IS NULL**;

| datecrash | type | location |
|---|---|---|
| 06/04/1921 0:00:00 | {null} | Point Cook, Australia |
| 17/05/1921 0:00:00 | {null} | Rock Springs, Wyoming |
| 08/04/1922 0:00:00 | {null} | Pao Ting Fou, China |
| 06/11/1924 0:00:00 | {null} | Cabrerolles, France |
| 07/09/1925 0:00:00 | {null} | Toul, France |
| 15/04/1927 0:00:00 | {null} | King Hill, Idaho |

# SESSION 6

- NULL TREATMENT
- **OR OPERATOR**
- DATA INSERTION FROM QUERIES

# OR OPERATOR
## OR Syntax

**MySQL/Oracle**

```
SELECT *
FROM movie
WHERE Field3 = Value3 AND
      (Field1 = Value1 OR Field2 = Value2)
```

## OR Example

**MySQL/Oracle**

```sql
SELECT title , popularity, vote_average
FROM movie
WHERE popularity > 50 OR vote_average > 7
```

| | TITLE | POPULARITY | VOTE_AVERAGE |
|---|---|---|---|
| 1 | The Big Lebowski | 49,230089 | 7,8 |
| 2 | Match Point | 30,669913 | 7,3 |
| 3 | The Untouchables | 38,272889 | 7,6 |
| 4 | Charlie and the Chocolate Factory | 53,905592 | 6,7 |
| 5 | The Lord of the Rings: The Fellowship of the Ring | 138,049577 | 8 |
| 6 | The Lord of the Rings: The Two Towers | 106,914973 | 8 |
| 7 | The Lord of the Rings: The Return of the King | 123,630332 | 8,1 |

# SESSION 6

- NULL TREATMENT
- OR OPERATOR
- **DATA INSERTION FROM QUERIES**

## CREATE TABLE AS SELECT Syntax

**MySQL/Oracle**
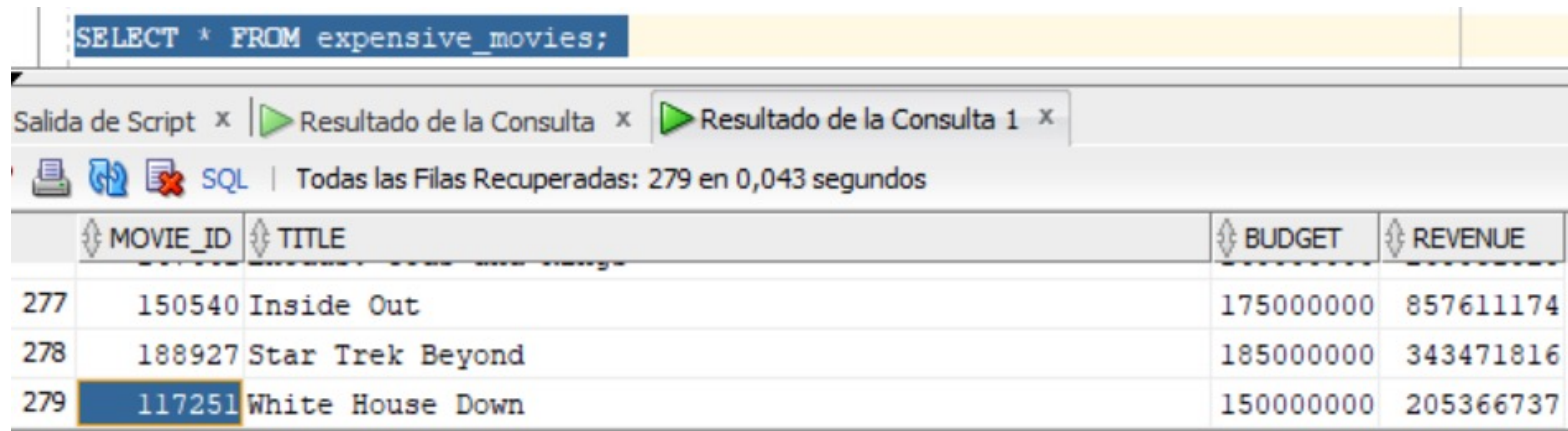
```
CREATE TABLE NewTable AS

SELECT Field1,Field2,Field3,..., FieldN

FROM table

WHERE Field1 = Value1 AND

       ....
```

## CREATE TABLE AS SELECT Example

**MySQL/Oracle**

```
CREATE TABLE expensive_movies AS
SELECT movie_id, title, budget, revenue
FROM movie WHERE budget > 100000000;
```

# DATA INSERTION FROM QUERIES

## INSERT INTO SELECT Syntax

**MySQL/Oracle**

```
INSERT INTO ExistentTable
SELECT Field1,Field2,...,FieldN FROM table
WHERE Field1 = Value1 AND
        ...
```
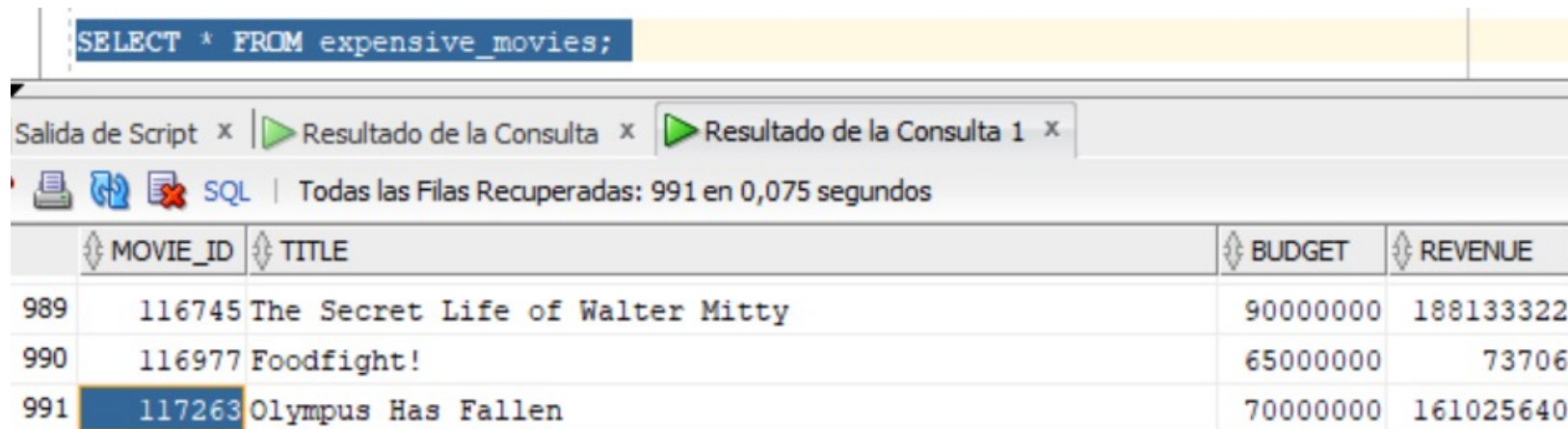
## INSERT INTO SELECT Example

**MySQL/Oracle**

```
INSERT INTO expensive_movies
SELECT movie_id, title, budget, revenue
FROM movie WHERE budget BETWEEN 50000000 AND 100000000;
```