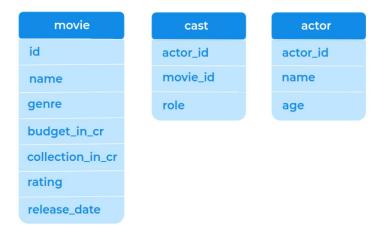
Expressions in Querying

We can write **expressions** in various SQL clauses. Expressions can comprise of various data types like integers, floats, strings, datetime, etc.

Let's learn more about expressions using the following database.

Database

The IMDb stores various movies, actors and cast information.



Using Expressions in SELECT Clause

1. Get profits of all movies.

Note: Consider profit as the difference between collection and budget.

```
SQL

1 SELECT
2   id, name, (collection_in_cr-budget_in_cr) as profit
3 FROM
4   movie;
```

Output

id	name	profit
1	The matrix	40.31
2	Inception	67.68

id	name	profit
3	The Dark Knight	82.5



We use "||" operator to concatenate strings in sqlite3

2. Get the movie name and genre in the following format: movie_name - genre .

```
SQL
SELECT
  name || " - " || genre AS movie_genre
  movie;
```

Output

movie_genre The Matrix - Sci-fi Inception - Action The Dark Knight - Drama Toy Story 3 - Animation

Using Expressions in WHERE Clause

1. Get all the movies with a profit of at least 50 crores.

```
SQL
movie
(collection_in_cr - budget_in_cr) >= 50;
```

Output

id	name	genre	budget_in_cr	collection_in_cr	
2	Inception	Action	16.0	83.68	
3	The Dark Knight	Action	18.0	100.5	
4	Toy Story 3	Animation	20.0	106.7	
4					•

Using Expressions in UPDATE Clause

1. Scale down ratings from 10 to 5 in movie table.

```
1 UPDATE movie
2 SET rating = rating/2;
```

You can check the updation of movie ratings by retriving the data from the table.

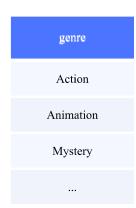
Expressions in HAVING Clause

Get all the genres that have average profit greater than 100 crores.

```
SQL

1 SELECT
2 genre
3 FROM
4 movie
5 GROUP BY
6 genre
7 HAVING
8 AVG(collection_in_cr - budget_in_cr) >= 100;
```

Output



Try it Yourself!

Question 1

Get the profit of every movie with

rating greater than 8.0

Expected Output

id	name	genre	budget_in_cr	collection_in_cr	
1	The Matrix	Sci-fi	6.3	46.43	
2	Inception	Action	16	83.68	
3	The Dark Knight	Drama	18	100.5	
4					•

Question 2

Get all the movies having a

profit of at least 30 crores, and belong to "Action", "Animation" or "Drama" genres.

Expected Result

id	name	genre	budget_in_cr	collection_in_cr	
2	Inception	Action	16	83.68	
3	The Dark Knight	Drama	18	100.5	
4	Toy Story 3	Animation	20	106.7	

