

## Database

The database contains movies, actors, and cast. You can check the schema and data of movies, actors, and cast tables in the code playground.

## Schema

movie	cast	actor
id	actor_id	actor_id
name	movie_id	name
genre	role	age
budget_in_cr		
collection_in_cr		
rating		
release_date		

## CAST Function

In database management systems, the

`CAST` function is used to convert a value from one data type to another data type.

## Syntax

```
1 CAST(value AS data_type);
```

SQL

## Example

```
1 CAST(strftime('%Y', release_date) AS INTEGER)
```

SQL

The

`CAST` function takes:

1. **Value:** The value that you want to convert into a specific data type.
2. **Data type:** The data type to which you want to convert the value.

## Example

Let's say you have a database of movie details, and you want to find out how many movies were released in each month of the year 2010.

SQL

```
1  SELECT
2      strftime('%m', release_date) AS MONTH,
3      COUNT(*) AS total_movies
4  FROM
5      movie
6  WHERE
7      CAST(strftime('%Y', release_date) AS INTEGER) = 2010
8  GROUP BY
9      strftime('%m', release_date);
```

From the above query,

- We want to get the data from the `movie` table.
- We use the `COUNT()` function to count the number of movies released per month in the year 2010.
- We use `strftime('%m', release_date)` to extract the month from the `release_date` column.
- We also use `strftime('%Y', release_date)` to extract the year from the `release_date` column.
- We use the `CAST()` function to convert the release date of movies from string format to integer format.
- We use the `WHERE` clause, the year part of the date can be compared with the year `2010`.
- We group the results by month using the `GROUP BY` clause.

Output

month	total_movies
03	2
05	1
06	3
..	..

Try it Yourself!

Now that you've learned about CAST Functions in SQL, let's try some practice exercises. Here are three example questions:

### Question 1

Get all the

`collection_in_cr` values from the movie table that's present in the database, where the rating is greater than `8.5`.

**Note:** For this question, get the values in the

FLOAT datatype.

#### Approach

We need to retrieve all the

collection\_in\_cr values from the movie table that's present in the database where the rating is greater than 8.5 .

#### Expected Output

collection
46.43
83.68
100.5
...

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#### Question 2

Get all years from the movie table that's present in the database which belongs to the

Drama genre.

**Note:** For this question, convert the

year in string datatype to the INT datatype.

#### Approach

We need to retrieve all the years from the movie table that's present in the database, where the genre is

Drama .

#### Expected Output

year
2008
1972
1974

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### Question 3

Get all the DISTINCT

leap years from the movie table in the database. A year is considered a leap year if it satisfies any one of the below conditions,

1. It is divisible by 4 and not divisible by 100 .
2. It is divisible by 400 .

#### Expected Output

year
1972
2008
2016

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