Date Data Type

- It is used to store dates in **MySQL date format**.
- is used to store dates in the format **'YYYY-MM-DD'**
- Syntax
  <mark>columnname date</mark>

Example

Create Table
create table emp(
        doj date
);

Insert Record

insert into emp values('2024-09-01');

insert into emp values('09-02-2024');

insert into emp values(str_to_date('09-02-2024','%d-%m-%Y'));

insert into emp values(str_to_date('08/02/2024','%d/%m/%Y'));

Retrieve Data

Select doj from emp;

select date_format(doj,'%d-%m-%Y') from emp;

select date_format(doj,'%d/%m/%Y') from emp;

select date_format(doj,'%d-%b-%Y') from emp;

Format Parameter

%Y: Year (4 digits)

%y: Year (2 digits)

%m: Month (01..12)

%d: Day (01..31)

%H: Hour (00..23)

%h: Hour (01..12)

%i: Minutes (00..59)

%s: Seconds (00..59)

%p: AM or PM

%W: Day of the week (Sunday..Saturday)

%M: Month name (January..December)

%b: Abbreviated month name (Jan..Dec)

%c: Month number (1..12)

Time Data Type

- It is used to store time values.
- It represents a time of day in the format **'HH:MM:SS'**.
- Syntax
  <mark>columnname</mark> time

Example

Create Table

```
create table emp(
        intime time
);
```
Insert Record

insert into emp values('10:11:12');

insert into emp values('10-11-12');

insert into emp values(str_to_date('10-11-12','%h-%i-%s'));

insert into emp values(str_to_date('13-11-12','%h-%i-%s'));

insert into emp values(str_to_date('13-11-12','%H-%i-%s'));

<u>Retrieve Data</u>

select intime from emp;

select TIME_FORMAT(intime, '%h:%i:%s %p') from emp;

select TIME_FORMAT(intime, '%H:%i:%s') from emp;

Timestamp Data Type

- It is used to store date and time values, including both the date and the time of day, in the format 'YYYY-MM-DD HH:MM:SS'.
- Syntax
  <mark>columnname</mark> timestamp

<u>Example</u>

<u>Create Table</u>

create table emp(

       create_at timestamp

);

<u>Insert Record</u>

insert into emp values('2024-02-08 10:11:12');

insert into emp values('2024/02/08 10:11:12');

insert into emp values(str_to_date('2024/02/08 10:11:12','%Y/%d/%m %h:%i:%s'));

<u>Retrieve Data</u>

select create_at from emp;

select date_format(create_at,'%d-%m-%Y') from emp;

select date_format(create_at,'%h:%i:%s') from emp;

select date_format(create_at,'%d-%m-%Y %h:%i:%s') from emp;

How to show headings to the columns

- By using column alias names we can give heading to any column.
- Alias name can be given after column name with or without **AS** key word.
- If alias name contains multiple word then enclosed with in double quote or single quote because space is not allowed in name.

Usecase1:

- While creating table columns are created with short name which are not user friendly. So while showing data we use columns headings.

Usercase2:

- We can use alias name to give heading to the calculated result.

Assignment#1

- Write SQL script to create a table using appropriate data types to store information about employees in a company.
  Table name should be employee and it should have the following column.

Column Name	Description
employee_id	Employee Id
first_name	First name of employee
last_name	Last name of employee
mobile_number	Mobile number of the empoyee
email	Email address of the employee
hire_date	Date of hire
designation	Designation held by the employee
salary	Salary of the employee
birth_date	Birth data of the employee

- Insert some data into the table.
- Perform CRUD operations