Relationships

{parent}   {child}

(A) ⟵ (B)

↓   ↓

primary   foreign
key   key

Joins ⟨
→ inner join
→ left join
→ right join

Data types

→ optional

Decimal (M, D)

→ {scaling}
(range 0 to 30)

max. no. of digits
(range 1 to 65)
{precision}

$$D <= M$$

→ scaling
←0→
25.654   ⟶ Decimal (5, 3)
←M→
↳ precision
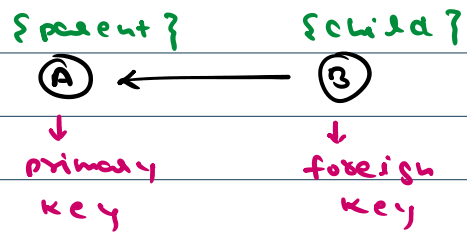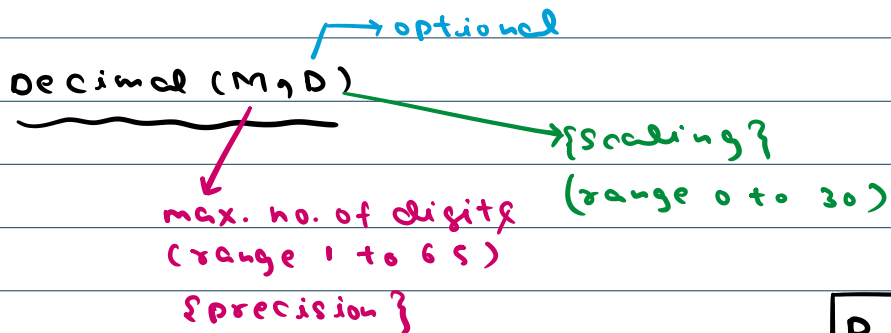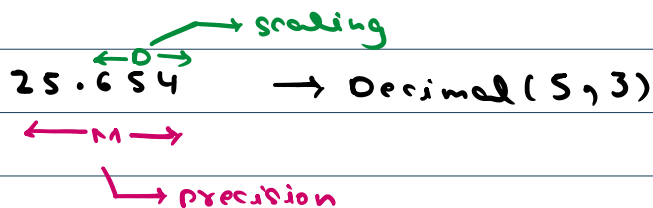
float and double

↳ approximations

fixed point decimal

less memory at the cost of precision.

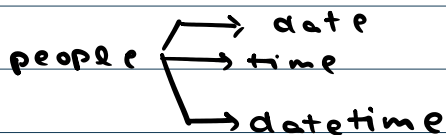float → 4 bytes, 7 digits
double → 8 bytes, 15 digits

Date and time

date → YYYY-MM-DD   2023-08-09
time → HH:MM:SS   21:05:32
datetime → YYYY-MM-DD HH:MM:SS   2023-08-09 21:05:32

people → date
       → time
       → datetime

curdate() → it gives today's date
curtime() → it gives current time
now() → it gives current date time

→ at any place
→ or filling the data also.

SQL Date and time documentation :
https://dev.mysql.com/doc/refman/8.0/en/date-and-time-functions.html

Formatting dates and time using functions

Name	Description
ADDDATE()	Add time values (intervals) to a date value
ADDTIME()	Add time

	CONVERT_TZ()	Convert from one time zone to another		
	CURDATE()	Return the current date		
	CURRENT_DATE(), CURRENT_DATE	Synonyms for CURDATE()		
	CURRENT_TIME(), CURRENT_TIME	Synonyms for CURTIME()		
	CURRENT_TIMESTAMP(), CURRENT_TIMESTAMP	Synonyms for NOW()		
	CURTIME()	Return the current time		
	DATE()	Extract the date part of a date or datetime expression		
	DATE_ADD()	Add time values (intervals) to a date value		
	DATE_FORMAT()	Format date as specified		
	DATE_SUB()	Subtract a time value (interval) from a date		
	DATEDIFF()	Subtract two dates		
	DAY()	Synonym for DAYOFMONTH()		
	DAYNAME()	Return the name of the weekday		
	DAYOFMONTH()	Return the day of the month (0-31)		
	DAYOFWEEK()	Return the weekday index of the argument		
	DAYOFYEAR()	Return the day of the year (1-366)		
	EXTRACT()	Extract part of a date		
	FROM_DAYS()	Convert a day number to a date		
	FROM_UNIXTIME()	Format Unix timestamp as a date		
	GET_FORMAT()	Return a date format string		
	HOUR()	Extract the hour		
	LAST_DAY	Return the last day of the month for the argument		
	LOCALTIME(), LOCALTIME	Synonym for NOW()		
	LOCALTIMESTAMP, LOCALTIMESTAMP()	Synonym for NOW()		
	MAKEDATE()	Create a date from the year and day of year		
	MAKETIME()	Create time from hour, minute, second		
	MICROSECOND()	Return the microseconds from argument		
	MINUTE()	Return the minute from the argument		
	MONTH()	Return the month from the date passed		
	MONTHNAME()	Return the name of the month		
	NOW()	Return the current date and time		
	PERIOD_ADD()	Add a period to a year-month		
	PERIOD_DIFF()	Return the number of months between periods		
	QUARTER()	Return the quarter from a date argument		
	SEC_TO_TIME()	Converts seconds to 'hh:mm:ss' format		
	SECOND()	Return the second (0-59)		
	STR_TO_DATE()	Convert a string to a date		
	SUBDATE()	Synonym for DATE_SUB() when invoked with three arguments		
	SUBTIME()	Subtract times		
	SYSDATE()	Return the time at which the function executes		
	TIME()	Extract the time portion of the expression passed		
	TIME_FORMAT()	Format as time		
	TIME_TO_SEC()	Return the argument converted to seconds		
	TIMEDIFF()	Subtract time		
	TIMESTAMP()	With a single argument, this function returns the date or datetime expression; with two arguments, the sum of the arguments		
	TIMESTAMPADD()	Add an interval to a datetime expression		
	TIMESTAMPDIFF()	Return the difference of two datetime expressions, using the units specified		
	TO_DAYS()	Return the date argument converted to days		
	TO_SECONDS()	Return the date or datetime argument converted to seconds since Year 0		
	UNIX_TIMESTAMP()	Return a Unix timestamp		
	UTC_DATE()	Return the current UTC date		
	UTC_TIME()	Return the current UTC time		
	UTC_TIMESTAMP()	Return the current UTC date and time		
	WEEK()	Return the week number		
	WEEKDAY()	Return the weekday index		
	WEEKOFYEAR()	Return the calendar week of the date (1-53)		
	YEAR()	Return the year		
	YEARWEEK()	Return the year and week		

Print last day of the month and month name.

→ Challenge

Date_format (date, format)

Specifier	Description
%a	Abbreviated weekday name (Sun..Sat)
%b	Abbreviated month name (Jan..Dec)
%c	Month, numeric (0..12)
%D	Day of the month with English suffix (0th, 1st, 2nd, 3rd, …)
%d	Day of the month, numeric (00..31)
%e	Day of the month, numeric (0..31)
%f	Microseconds (000000..999999)
%H	Hour (00..23)
%h	Hour (01..12)
%I	Hour (01..12)
%i	Minutes, numeric (00..59)
%j	Day of year (001..366)
%k	Hour (0..23)
%l	Hour (1..12)
%M	Month name (January..December)
%m	Month, numeric (00..12)
%p	AM or PM
%r	Time, 12-hour (hh:mm:ss followed by AM or PM)
%S	Seconds (00..59)
%s	Seconds (00..59)
%T	Time, 24-hour (hh:mm:ss)
%U	Week (00..53), where Sunday is the first day of the week; WEEK() mode 0
%u	Week (00..53), where Monday is the first day of the week; WEEK() mode 1
%V	Week (01..53), where Sunday is the first day of the week; WEEK() mode 2; used with %X
%v	Week (01..53), where Monday is the first day of the week; WEEK() mode 3; used with %x
%W	Weekday name (Sunday..Saturday)
%w	Day of the week (0=Sunday..6=Saturday)
%X	Year for the week where Sunday is the first day of the week, numeric, four digits; used with %V
%x	Year for the week, where Monday is the first day of the week, numeric, four digits; used with %v
%Y	Year, numeric, four digits
%y	Year, numeric (two digits)
%%	A literal % character
%x	x, for any "x" not listed above

Mathematics on date