DATE funksiyalar

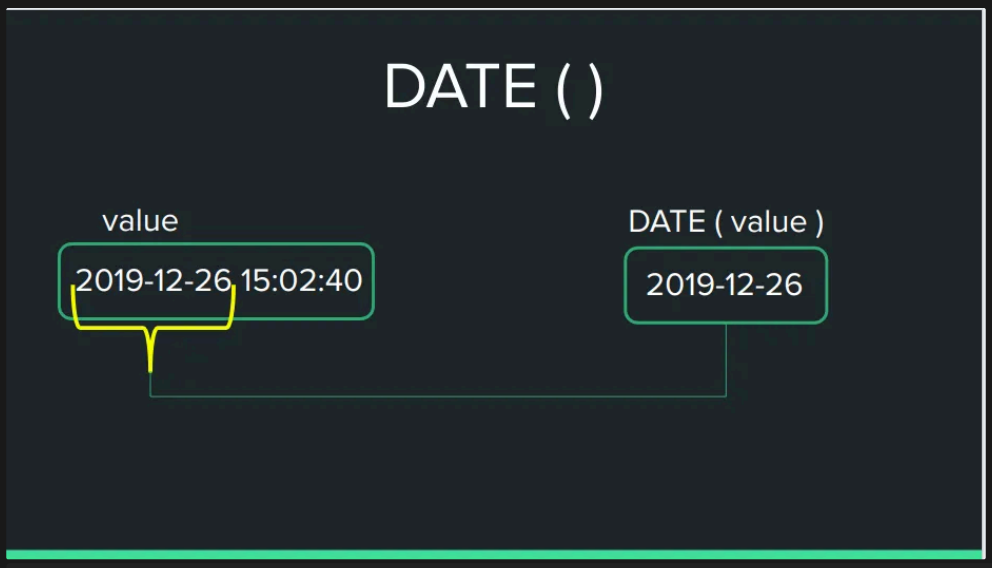
CURDATE()

Ushbu funksiya hozirgi sanani 'YYYY-MM-DD' formatda qaytaradi SELECT CURDATE(); +------------+ | CURDATE() | +------------+ | 2019-12-26 | +------------+ CURRENT_DATE va CURRENT_DATE() funksiyalari CURDATE() funksiyasining sinonimlari desak ham bo'ladi. Ular bir xil vazifani bajaradi SELECT CURRENT_DATE(), CURRENT_DATE, CURDATE(); +----------------+----------------+------------+ | CURRENT_DATE() | CURRENT_DATE | CURDATE() | +----------------+----------------+------------+ | 2019-12-26 | 2019-12-26 | 2019-12-26 | +----------------+----------------+------------+ So`rovlarda ishlatilishi: select count(*) from salaries where to_date >= CURDATE(); select count(*) from salaries where CURDATE() between from_date and to_date 9999-12-31

NOW()

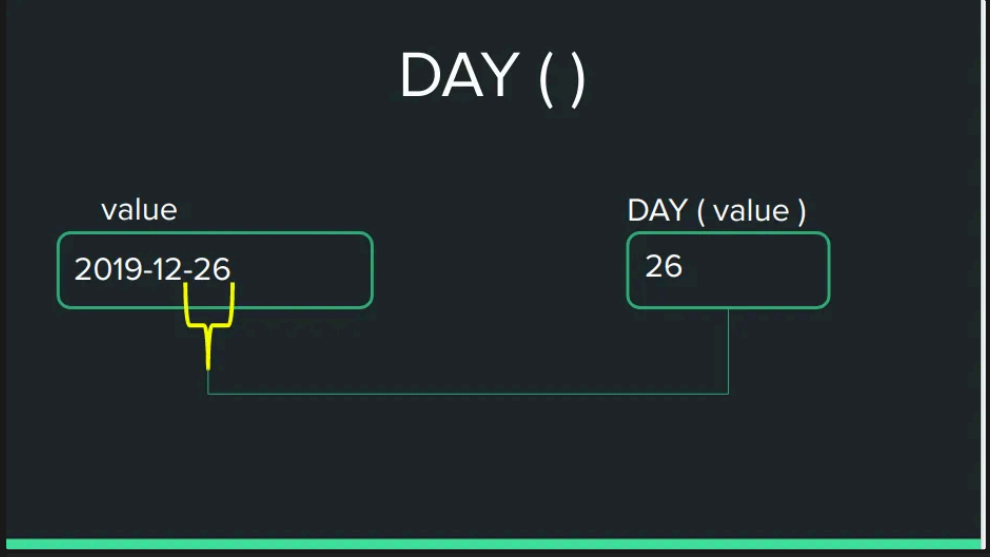
Ushbu funksiya hozirgi sanani va vaqtni 'YYYY-MM-DD HH:MM:DD' formatda qaytaradi. Ya`ni Hozirgi sana va vaqtni soat, minut sekundlari bilan qaytaradi. SELECT NOW(); +---------------------+ | NOW() | +---------------------+ | 2019-12-26 15:02:40 | +---------------------+ CURRENT_TIMESTAMP() VA NOW() VA CURRENT_TIMESTAMP - Bularni deyarli bir xil qiymat qaytaradi va bittasini o`rniga boshqasini ishlatib ketish mumkin SELECT CURRENT_TIMESTAMP(), NOW(), CURRENT_TIMESTAMP; +---------------------+---------------------+---------------------+ | CURRENT_TIMESTAMP() | NOW() | CURRENT_TIMESTAMP | +---------------------+---------------------+---------------------+ | 2019-12-26 15:58:25 | 2019-12-26 15:58:25 | 2019-12-26 15:58:25 | +---------------------+---------------------+---------------------+ NOW() - funksiyasidan jadval hosil qilayotganda, default qiymat sifatida ishlatish mumkin. CREATE TABLE category(id INT PRIMARY KEY AUTO_INCREMENT, title VARCHAR(255) NOT NULL, created_at DATETIME NOT NULL DEFAULT NOW()); Yuqoridagi hosil qilgan jadvalga ma`lumot qo`shadigan bo`lsak: INSERT INTO category(title) VALUES('Test NOW() funksiyasi uchun'); SELECT * FROM category; So`rovlarda ishlatilishi: select count(*) from salaries where NOW() between from_date and to_date; select count(*) from salaries where to_date >= NOW(); -- Yuqoridagi so'rovlarni o'zingiz tekshirib ko'rishingiz mumkin

DATE()



DATE() - funksiyasi berilgan 'YYYY-MM-DD HH:MM:DD' formatdagi vaqtdan, sanani ajratib beradi. Ya`ni 'YYYY-MM-DD' formatda qaytaradi natijani SELECT DATE('2019-12-26 15:02:40') as kun; +--------------+ | kun | +--------------+ | 2019-12-26 | +--------------+ So`rovlarda ishlatilishi: select * from salaries where to_date >= DATE(NOW()); select * from salaries where from_date >= DATE('1992-01-01 00:01:23') AND to_date <= DATE('1992-12-31 23:59:59') ;

DAY()

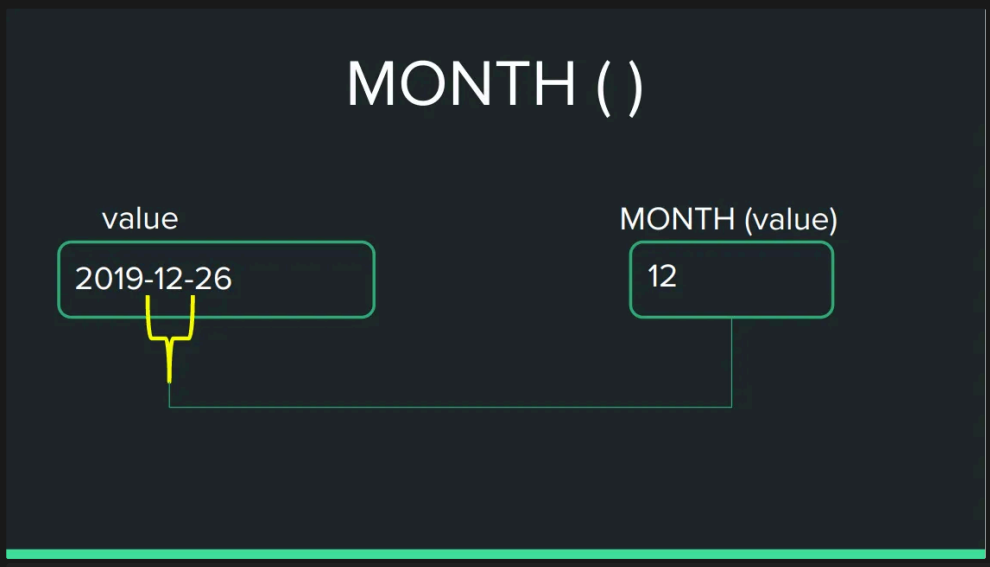


DAY() - funksiyasi berilgan 'YYYY-MM-DD' yoki 'YYYY-MM-DD HH:MM:DD' formatdagi vaqtdan, oyning qaysi kuni ekanligini ajratib beradi. select DAY('2019-12-26 15:02:40') as bugungi_sana; +--------------+ | bugungi_sana | +--------------+ | 26 | +--------------+ So`rovlarda ishlatilishi: select * from employees where DAY(birth_date) = 1 limit 10 Ushbu so'rovda oyning 1 - sanasida tug`ilganlarni chiqaradi

YEAR()

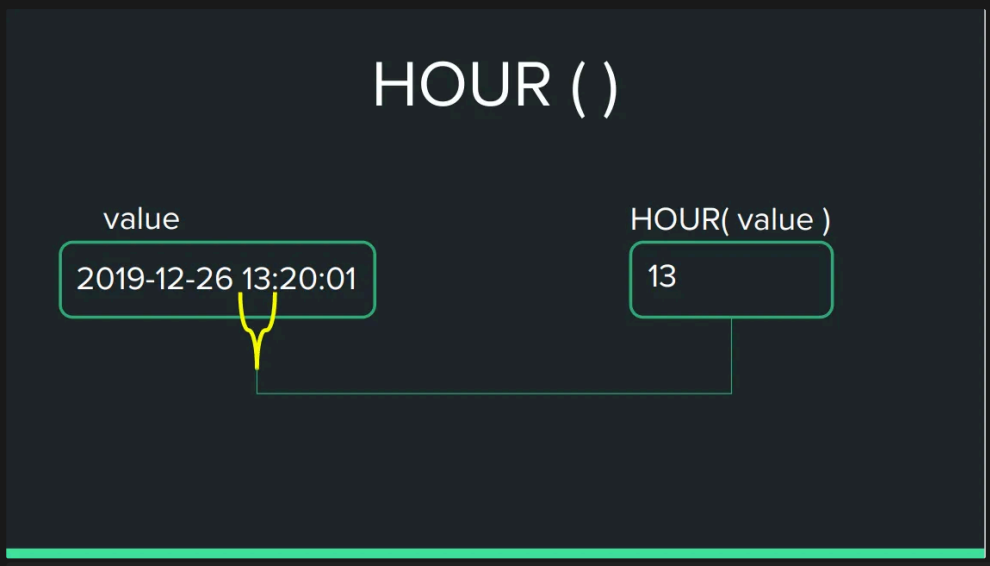
YEAR() - funksiyasi berilgan 'YYYY-MM-DD' yoki 'YYYY-MM-DD HH:MM:DD' formatdagi vaqtdan, YILni ajratib beradi. select YEAR('2019-12-26 15:02:40') as bugungi_sana; +--------------+ | bugungi_sana | +--------------+ | 2019 | +--------------+ So`rovlarda ishlatilishi: select * from employees where YEAR(birth_date) = 1980 limit 10 Ushbu so'rovda 1980-yil tug`ilganlarni chiqaradi

MONTH()



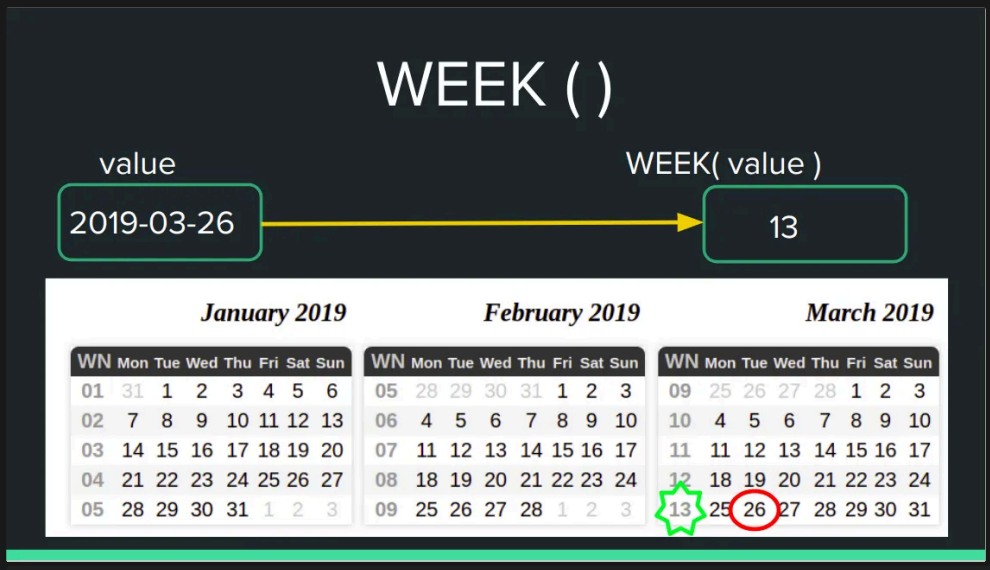
MONTH() - funksiyasi berilgan 'YYYY-MM-DD' yoki 'YYYY-MM-DD HH:MM:DD' formatdagi vaqtdan, OYni ajratib beradi. Natija son ko`rinishida bo`ladi select MONTH('2019-12-26 15:02:40') as bugungi_sana; +--------------+ | bugungi_sana | +--------------+ | 12 | +--------------+ So`rovlarda ishlatilishi: select * from employees where MONTH(birth_date) = 12 limit 10 select MONTH(birth_date) tug_oy, birth_date from employees where MONTH(birth_date) = 12 limit 10 Ushbu so'rovda DEKABR oyida tug`ilganlarni chiqaradi

HOUR()



HOUR() - funksiyasi berilgan 'YYYY-MM-DD' yoki 'YYYY-MM-DD HH:MM:DD' formatdagi vaqtdan, SOATni ajratib beradi. select HOUR('2019-12-26 15:02:40') as vaqt; +--------------+ | vaqt. | +--------------+ | 15 | +--------------+ select HOUR('655:02:40') as vaqt; +--------------+ | bugungi_sana | +--------------+ | 655 | +--------------+

WEEK()



1 yil 365 yoki 366 kundan tashkil topgan. Har bir hafta 7 kundan iborat. 365/7=52 hafta dan iborat. **WEEK()**- funksiyasi yordamida berilgan sana yilning nechinchi haftasida ekanligini aniqlash mumkin

WEEKDAY()

Berilgan sana, haftaning qaysi indeksida ekanligini aniqlab beradi select weekday('2022-09-16'); Natija sonlar ko`rinishida chiqadi 0 1 2 3 4 5 6 Monday Tuesday Wednesday Thursday Saturday Sunday Dushanba Seshanba Chorshanba Payshanba Juma Shanba Yakshanba

DAYOFWEEK() va DAYNAME()

DAYOFWEEK(date); Berilgan sana, haftaning qaysi kuniga to`g`ri kelishi aniqlab beradi. Natija son bb qaytadi. 1 2 3 4 5 6 7 Sunday Monday Tuesday Wednesday Thursday Friday Saturday Yakshanba Dushanba Seshanba Chorshanba Payshanba Juma Shanba DAYNAME(date) - Berilgan sana, haftaning qaysi kuniga to`g`ri kelishi aniqlab beradi. Natija matn turida bo`lib qaytadi. SELECT DAYOFWEEK('2019-12-31') as son_hafta, DAYNAME('2019-12-31') as matn_hafta; Natija: +-----------+------------+ | son_hafta | matn_hafta | +-----------+------------+ | 3 | Tuesday | +-----------+------------+

DATE_ADD() | ADDDATE()

DATE_ADD() va ADDDATE() - bu ikkala funksiya ham bir xil vazifa bajaradi. Berilgan sanaga kun, soat, minut va boshqacha vaqt turlarini qo`shib beradi Qolip: **ADDDATE(date, INTERVAL expr unit) date** - sana **INTERVAL expr unit** - qancha vaqt qo`shish kerakligi Misol: Berilgan sanaga 10 kun qo`shish **SELECT ADDDATE('2019-12-18', 10);** Natija: +-------------------------+ | ADDDATE('2019-12-18',10) | +-------------------------+ | 2019-12-28 | +-------------------------+ Berilgan sanadan 12 kun olib tashlash: **SELECT ADDDATE('2019-12-18', -12);** Natija: +---------------------------+ | ADDDATE('2019-12-18', -12) | +---------------------------+ | 2019-12-06 | +---------------------------+ Bu funksiya faqat kun qo`shish uchun xizmat qilmaydi. Kundan tashqari soat, minut sekund ham qo`shishimiz mumkin. Endi 10 kunni INTERVAL bilan qo`shish ko`ramiz; **SELECT ADDDATE('2019-12-18', INTERVAL 10 day);** Natija: +-------------------------------------+ | ADDDATE('2019-12-18', INTERVAL 10 day) | +-------------------------------------+ | 2019-12-28 | +-------------------------------------+ Ko`rib turganingizdek INTERVAL so`zidan keyin keraklicha kun, soat, minutlarni ko`rsatishimiz mumkin. Formula quyidagicha : **INTERVAL** [**qancha**] [**vaqt turi**] [**qancha**] - bu qismida musbat va manfiy sonlar bo`lishi mumkin **[vaqt turi]** - quyidagi qiymatlarni berishimiz mumkin: MICROSECOND SECOND - sekund qo`shish uchun MINUTE - minut qo`shish uchun HOUR - soat qo`shish uchun DAY - kun qo`shish uchun WEEK - hafta qo`shish uchun MONTH - oy qo`shish uchun QUARTER - chorak qo`shish uchun YEAR - yil qo`shish uchun SECOND_MICROSECOND MINUTE_MICROSECOND MINUTE_SECOND HOUR_MICROSECOND HOUR_SECOND HOUR_MINUTE DAY_MICROSECOND DAY_SECOND DAY_MINUTE DAY_HOUR YEAR_MONTH Misollar: 10 soat qo`shish: SELECT ADDDATE('2019-12-18', INTERVAL 10 hour); Natija: +---------------------------------------+ | ADDDATE('2019-12-18', INTERVAL 10 hour) | +---------------------------------------+ | 2019-12-18 10:00:00 | +---------------------------------------+ 59 sekund qo`shish: SELECT ADDDATE('2019-12-18 12:22:01', INTERVAL 59 SECOND); Natija: +---+ | ADDDATE('2019-12-18 12:22:01', INTERVAL 59 SECOND) | +---+ | 2019-12-18 12:23:00 | +---+ 10 soat ayirish SELECT ADDDATE('2019-12-18 12:22:01', INTERVAL -10 hour); Natija: +---+ | ADDDATE('2019-12-18 12:22:01', INTERVAL -10 hour) | +---+ | 2019-12-18 02:22:01 | +---+

ADDTIME()

Berilgan sanaga vaqt qo`shish uchun ishlatiladi. Formula: **ADDTIME(berilgan_sana,qushiladigan_miqdor);** SELECT ADDTIME('2019-12-15 13:20:32','2 01:39:27') as natija_sana; Natija: +---------------------+ | natija_sana | +---------------------+ | 2019-12-17 14:59:59 | +---------------------+ Keling shu misolni tahlil qilaylik: '2019-12-15 13:20:32' - bu berilgan sana '2 01:39:27' - bu esa berilgan sanaga qo`shilishi kerak bo`lgan vaqt Aslida DATETIME format quyidagicha va format bilan qiymatni ustma ust qo`yamiz: "YYYY-mm-dd HH:ii:ss" 2 01 39 27 Ko`rib turganingizdek, 2 kun, 01- soat, 39-minut, 27 sekund qo`shyapti.

DATE_FORMAT()

DATE_FORMAT() - ushbu funksiya sana va vaqtlarni har xil formatda olishga yordam beradi. Qolip: DATE_FORMAT(date,format); date - berilgan sana format - berilgan sanani o`tkazmoqchi bo`lgan format turi format - larning turlar: %a Abbreviated weekday name (Sun to Sat) %b Abbreviated month name (Jan to Dec) %c Numeric month name (1 to 12) %D Day of the month as a numeric value, followed by suffix (1st, 2nd, 3rd, ...) %d Day of the month as a numeric value (01 to 31) %e Day of the month as a numeric value (1 to 31) %f Microseconds (000000 to 999999) %H Hour (00 to 23) %h Hour (00 to 12) %I Hour (00 to 12) %i Minutes (00 to 59) %j Day of the year (001 to 366) %k Hour (0 to 23) %l Hour (1 to 12) %M Month name in full (January to December) %m Month name as a numeric value (00 to 12) %p AM or PM %r Time in 12 hour AM or PM format (hh:mm:ss AM/PM) %S Seconds (00 to 59) %s Seconds (00 to 59) %T Time in 24 hour format (hh:mm:ss) %U Week where Sunday is the first day of the week (00 to 53) %u Week where Monday is the first day of the week (00 to 53) %V Week where Sunday is the first day of the week (01 to 53). Used with %X %v Week where Monday is the first day of the week (01 to 53). Used with %X %W Weekday name in full (Sunday to Saturday) %w Day of the week where Sunday=0 and Saturday=6 %X Year for the week where Sunday is the first day of the week. Used with %V %x Year for the week where Monday is the first day of the week. Used with %V %Y Year as a numeric, 4-digit value %y Year as a numeric, 2-digit value Misollar: SELECT DATE_FORMAT('2019-12-28 22:23:02', '%W %D %M %Y') as natija_sana; Natija: +-----------------------------+ | natija_sana | +-----------------------------+ | Saturday 28th December 2019 | +-----------------------------+ SELECT DATE_FORMAT('2019-12-28 22:23:02', '%d-%M, %Y-yil, soat: %k dan,%i daqiqa, %s sekund utdi ') as natija_sana; Natija: +---+ | natija_sana | +---+ | 28-December, 2019-yil, soat: 22 dan,23 daqiqa, 02 sekund utdi | +---+

DATEDIFF()

DATEDIFF(sana_1, sana_2); Ikkita sanadan necha kun farq borligini aniqlash uchun ishlatiladi. SELECT DATEDIFF('2019-12-22','2019-12-10') as kun_farqi; Natija: +-----------+ | kun_farqi | +-----------+ | 12 | +-----------+ SELECT DATEDIFF('2019-02-22','2019-12-10') as kun_farqi; Natija: +-----------+ | kun_farqi | +-----------+ | -291 | +-----------+ SELECT DATEDIFF('2019-12-22 12:43:22','2019-12-10') as kun_farqi; Natija: +-----------+ | kun_farqi | +-----------+ | 12 | +-----------+

DATE_SUB() va SUBDATE()

DATE_ADD() funksiyaning teskarisi, yani berilgan sanadan biror vaqtni ayirish uchun DATE_SUB() funksiyadan foydalanamiz. DATE_SUB() va SUBDATE() funksiyalari bir xil vazifa bajaradi. SELECT SUBDATE('2019-12-18 12:22:01', INTERVAL 10 DAY); yoki SELECT DATE_SUB('2019-12-18 12:22:01', INTERVAL 10 DAY); Natija: +---+ | DATE_SUB('2019-12-18 12:22:01', INTERVAL 10 DAY) | +---+ | 2019-12-08 12:22:01 | +---+ Berilgan sanadan 10 kun ayirdi

MONTHNAME()

MONTHNAME() - funksiyasi berilgan 'YYYY-MM-DD' yoki 'YYYY-MM-DD HH:MM:DD' formatdagi vaqtdan, OYni ajratib beradi. Natija MATN ko`rinishida bo`ladi SELECT MONTH('2019-12-31') as son_oy, MONTHNAME('2019-12-31') as matn_oy; Natija: +--------+----------+ | son_oy | matn_oy | +--------+----------+ | 12 | December | +--------+----------+

TIMEDIFF()

TIMEDIFF()-ushbu funksiya ikkita vaqtni orasidagi farqni topish uchun ishlatiladi SELECT TIMEDIFF('12:16:01','10:01:00') farqi; Natija: +----------+ | farqi | +----------+ | 02:15:01 | +----------+

MAKEDATE()

Yil va yilning biror kunini ko`rsatgan holda sana hosil qilish uchun ishlatiladi. SELECT MAKEDATE(2020, 3); Natija: +--------------------+ | MAKEDATE(2020, 3) | +--------------------+ | 2020-01-03 | +--------------------+ 2020 - yil, yilning 127-kuni. SELECT MAKEDATE(2020, 127); Natija: +----------------------+ | MAKEDATE(2020, 127) | +----------------------+ | 2020-05-06 | +----------------------+

Masalalar

SQL

Copy

1-masala. "payments" jadvalidan: - 2003 - yil, nechta to`lov bo`lgan va necha so`mlik bo`lganini - 2004 - yil dekabr oyida nechta to`lov bo`lgan va necha so`mlik bo`lganini - 2005 - yildagi barcha dushanba kunlariida, jami necha so`mlik xarid bo`lganini aniqlang - 2004 - yilda , yanvardan to mart oyining oxirigacha jami necha so`mlik xarid bo`lganini aniqlang 2-masala "orderDate" - buyurtma qilingan sana "shippedDate" - yetkazilgan sana "requiredDate" - gacha yetkazilishi shart bo`lgan sana "orders" jadvalidan: - customerNumber=141 bo`lgan mijoz, 2005 - yilda qilgan buyurtmalarining, nechtasi "Shipped" bo`lganini aniqlang - 2003 - yilda eng uzoq vaqtda yetkazib berilgan 10 ta buyurtmani aniqlang - 2004 - yilda eng qisqa muddatda yetkazilgan 10 ta buyurtmani aniqlang - 2005 - yilda eng kam vaqtda yetkazilgan 10 ta buyurtmalarnini va necha kunda yetkazilganini chiqaring