**ОТЧЁТ**

**ПО ЛАБОРАТОРНОЙ РАБОТЕ № 5**

**Представления (view)**

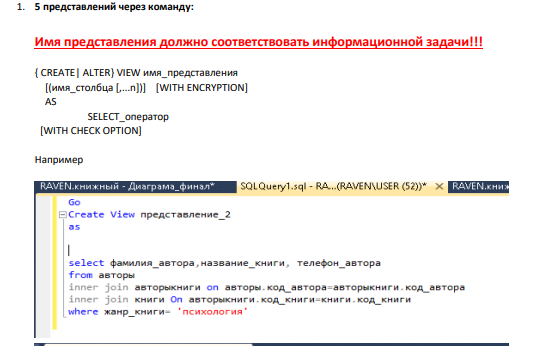
*Выполнил студент 3 курса ПМ АДМО*

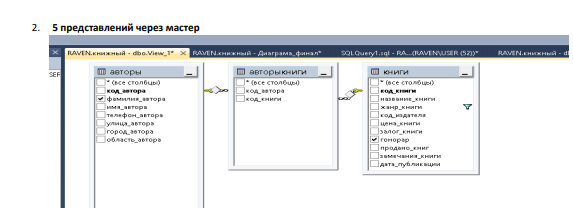
*Турчанов Денис*

# Введение

*Цель работы:*

Для выполнения лабораторной работы необходимо создать по выбранной предметной области 5 представлений вида:



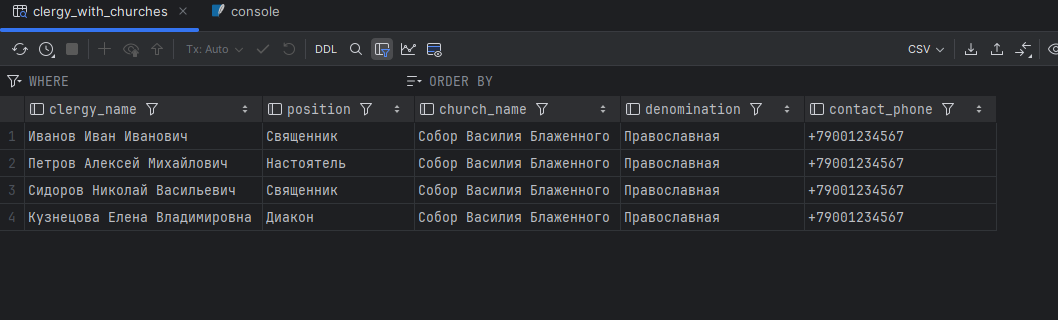


Выполнение.

Задание 1.

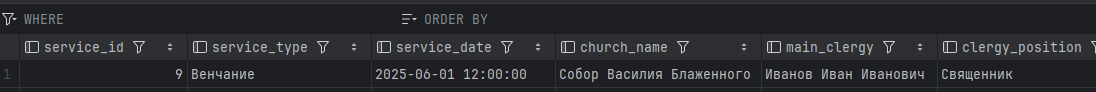
-- 1. Список священников с их церквями

CREATE VIEW clergy\_with\_churches AS  
SELECT  
 c.full\_name AS clergy\_name,  
 cp.title AS position,  
 ch.name AS church\_name,  
 d.name AS denomination,  
 c.phone AS contact\_phone  
FROM  
 clergy c  
JOIN  
 clergy\_positions cp ON c.position\_id = cp.position\_id  
LEFT JOIN  
 churches ch ON c.church\_id = ch.church\_id  
LEFT JOIN  
 denominations d ON ch.denomination\_id = d.denomination\_id;



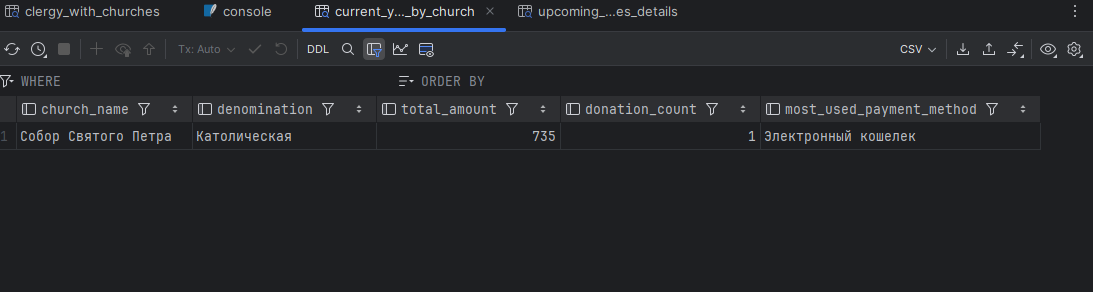
-- 2. Предстоящие службы с подробностями

CREATE VIEW upcoming\_services\_details AS  
SELECT  
 s.service\_id,  
 st.name AS service\_type,  
 s.service\_date,  
 ch.name AS church\_name,  
 cl.full\_name AS main\_clergy,  
 cp.title AS clergy\_position  
FROM  
 services s  
JOIN  
 service\_types st ON s.type\_id = st.type\_id  
JOIN  
 churches ch ON s.church\_id = ch.church\_id  
LEFT JOIN  
 clergy cl ON s.main\_clergy\_id = cl.clergy\_id  
LEFT JOIN  
 clergy\_positions cp ON cl.position\_id = cp.position\_id  
WHERE  
 s.service\_date >= *date*('now')  
ORDER BY  
 s.service\_date;



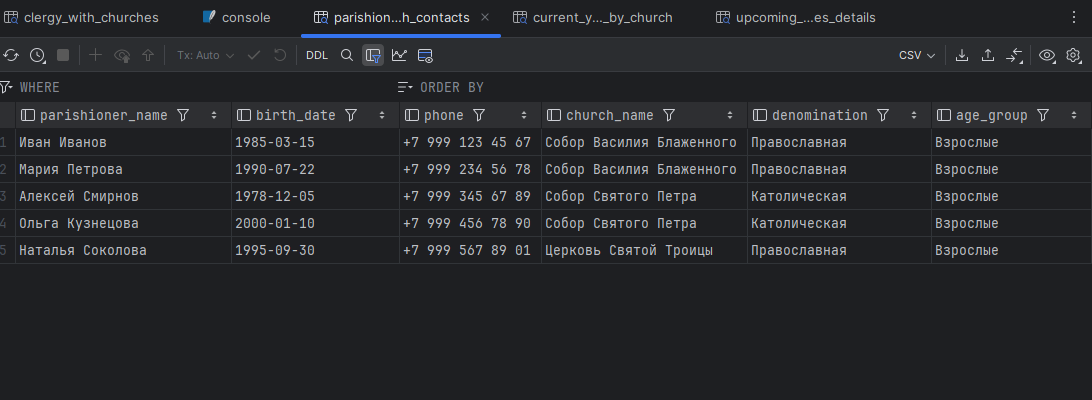
-- 3. Донации по церквям за текущий год

CREATE VIEW current\_year\_donations\_by\_church AS  
SELECT  
 ch.name AS church\_name,  
 d.name AS denomination,  
 *SUM*(dn.amount) AS total\_amount,  
 *COUNT*(dn.donation\_id) AS donation\_count,  
 pm.name AS most\_used\_payment\_method  
FROM  
 donations dn  
JOIN  
 churches ch ON dn.church\_id = ch.church\_id  
JOIN  
 denominations d ON ch.denomination\_id = d.denomination\_id  
JOIN  
 payment\_methods pm ON dn.method\_id = pm.method\_id  
WHERE  
 *strftime*('%Y', dn.donation\_date) = *strftime*('%Y', *date*('now'))  
GROUP BY  
 ch.name, d.name, pm.name  
ORDER BY  
 total\_amount DESC;



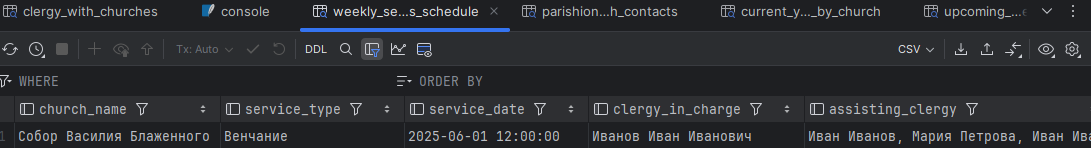
-- 4. Прихожане с их церквями и контактной информацией

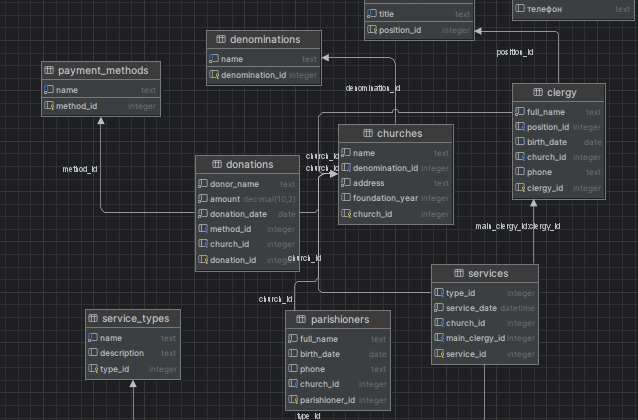
CREATE VIEW parishioners\_with\_contacts AS  
SELECT  
 p.full\_name AS parishioner\_name,  
 p.birth\_date,  
 p.phone,  
 ch.name AS church\_name,  
 d.name AS denomination,  
 CASE  
 WHEN *date*('now') - p.birth\_date < 18 THEN 'Молодежь'  
 WHEN *date*('now') - p.birth\_date BETWEEN 18 AND 60 THEN 'Взрослые'  
 ELSE 'Пожилые'  
 END AS age\_group  
FROM  
 parishioners p  
LEFT JOIN  
 churches ch ON p.church\_id = ch.church\_id  
LEFT JOIN  
 denominations d ON ch.denomination\_id = d.denomination\_id  
ORDER BY  
 church\_name, parishioner\_name;



-- 5. Расписание служб по церквям на неделю

CREATE VIEW weekly\_services\_schedule AS  
SELECT  
 ch.name AS church\_name,  
 st.name AS service\_type,  
 s.service\_date,  
 cl.full\_name AS clergy\_in\_charge,  
 *GROUP\_CONCAT*(p.full\_name, ', ') AS assisting\_clergy  
FROM  
 services s  
JOIN  
 churches ch ON s.church\_id = ch.church\_id  
JOIN  
 service\_types st ON s.type\_id = st.type\_id  
LEFT JOIN  
 clergy cl ON s.main\_clergy\_id = cl.clergy\_id  
LEFT JOIN  
 clergy c ON c.church\_id = ch.church\_id  
LEFT JOIN  
 parishioners p ON p.church\_id = ch.church\_id  
WHERE  
 s.service\_date BETWEEN *date*('now') AND *date*('now', '+7 days')  
GROUP BY  
 ch.name, st.name, s.service\_date, cl.full\_name  
ORDER BY  
 ch.name, s.service\_date;





Приложение

-- 1. Список священников с их церквями

CREATE VIEW clergy\_with\_churches AS

SELECT

c.full\_name AS clergy\_name,

cp.title AS position,

ch.name AS church\_name,

d.name AS denomination,

c.phone AS contact\_phone

FROM

clergy c

JOIN

clergy\_positions cp ON c.position\_id = cp.position\_id

LEFT JOIN

churches ch ON c.church\_id = ch.church\_id

LEFT JOIN

denominations d ON ch.denomination\_id = d.denomination\_id;

-- 2. Предстоящие службы с подробностями

CREATE VIEW upcoming\_services\_details AS

SELECT

s.service\_id,

st.name AS service\_type,

s.service\_date,

ch.name AS church\_name,

cl.full\_name AS main\_clergy,

cp.title AS clergy\_position

FROM

services s

JOIN

service\_types st ON s.type\_id = st.type\_id

JOIN

churches ch ON s.church\_id = ch.church\_id

LEFT JOIN

clergy cl ON s.main\_clergy\_id = cl.clergy\_id

LEFT JOIN

clergy\_positions cp ON cl.position\_id = cp.position\_id

WHERE

s.service\_date >= date('now')

ORDER BY

s.service\_date;

-- 3. Донации по церквям за текущий год

CREATE VIEW current\_year\_donations\_by\_church AS

SELECT

ch.name AS church\_name,

d.name AS denomination,

SUM(dn.amount) AS total\_amount,

COUNT(dn.donation\_id) AS donation\_count,

pm.name AS most\_used\_payment\_method

FROM

donations dn

JOIN

churches ch ON dn.church\_id = ch.church\_id

JOIN

denominations d ON ch.denomination\_id = d.denomination\_id

JOIN

payment\_methods pm ON dn.method\_id = pm.method\_id

WHERE

strftime('%Y', dn.donation\_date) = strftime('%Y', date('now'))

GROUP BY

ch.name, d.name, pm.name

ORDER BY

total\_amount DESC;

-- 4. Прихожане с их церквями и контактной информацией

CREATE VIEW parishioners\_with\_contacts AS

SELECT

p.full\_name AS parishioner\_name,

p.birth\_date,

p.phone,

ch.name AS church\_name,

d.name AS denomination,

CASE

WHEN date('now') - p.birth\_date < 18 THEN 'Молодежь'

WHEN date('now') - p.birth\_date BETWEEN 18 AND 60 THEN 'Взрослые'

ELSE 'Пожилые'

END AS age\_group

FROM

parishioners p

LEFT JOIN

churches ch ON p.church\_id = ch.church\_id

LEFT JOIN

denominations d ON ch.denomination\_id = d.denomination\_id

ORDER BY

church\_name, parishioner\_name;

-- 5. Расписание служб по церквям на неделю

CREATE VIEW weekly\_services\_schedule AS

SELECT

ch.name AS church\_name,

st.name AS service\_type,

s.service\_date,

cl.full\_name AS clergy\_in\_charge,

GROUP\_CONCAT(p.full\_name, ', ') AS assisting\_clergy

FROM

services s

JOIN

churches ch ON s.church\_id = ch.church\_id

JOIN

service\_types st ON s.type\_id = st.type\_id

LEFT JOIN

clergy cl ON s.main\_clergy\_id = cl.clergy\_id

LEFT JOIN

clergy c ON c.church\_id = ch.church\_id

LEFT JOIN

parishioners p ON p.church\_id = ch.church\_id

WHERE

s.service\_date BETWEEN date('now') AND date('now', '+7 days')

GROUP BY

ch.name, st.name, s.service\_date, cl.full\_name

ORDER BY

ch.name, s.service\_date;