**ОТЧЕТ**

**По лабораторной работе №3**

**Общая часть**

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**SQL-запросы:**

-- =======================================

-- 3\_1

-- =======================================

--1

select address

from patient

where

(

patient.first\_name = 'Самюэль' and

patient.surname = 'Паниковский' and

patient.middle\_name = 'Михайлович'

);

--2

select \*

from patient

where(

patient.address in ('г. Урюпинск', 'г. Черноморск')

);

--3

select \*

from services

where(

price = (select min(price) from services)

);

--4

select \*

from visit

where(

visit\_date < '2022-09-21'

);

--5

select count(id\_doctor)

from doctor;

--6

select lower(first\_name)

from doctor

where first\_name like 'А%';

--7

select n\_visit, id\_doctor, id\_patient, to\_char(visit\_date, 'DD/MM/YYYY') as visit\_date, code\_srv

from visit;

--8

select replace(

replace(title, 'Хирург', 'Костоправ'), 'Травмвматолог', 'Костоправ'

)

from speciality;

--9

select avg(price)

from services serv

where serv.code\_srv in

(

select code\_srv

from visit vis

group by vis.visit\_date, vis.code\_srv

having count(\*) >= 3

);

--10

select spec.title as speciality, array\_agg(concat(doc.first\_name, ' ', doc.middle\_name, ' ', doc.surname)) as names

from

speciality spec

inner join doctor doc

on spec.code\_spec = doc.code\_spec

group by speciality;

--11

select array\_agg(concat(pat.surname,' ', pat.first\_name, ' ', pat.middle\_name)) as patients, serv.title, serv.price

from visit vis

inner join patient pat on vis.id\_patient = pat.n\_card

inner join services serv on vis.code\_srv = serv.code\_srv

where serv.price between (select min(price) from services) and (select min(price) + 50 from services)

group by serv.title, serv.price;

--12

select vis.id\_doctor, vis.id\_patient, vis.visit\_date, serv.title

from visit vis

inner join services serv on serv.code\_srv = vis.code\_srv

where vis.n\_visit in (

select vis.n\_visit

from visit vis

inner join services serv

on serv.code\_srv = vis.code\_srv

where serv.price = (select max(price) from services)

);

--13

select spec.title as speciality, array\_agg(concat(doc.first\_name, ' ', doc.middle\_name, ' ', doc.surname)) as names

from

speciality spec

natural join doctor doc

group by speciality;

--14

select vis.n\_visit, vis.id\_doctor, vis.visit\_date, vis.code\_srv,

concat(pat.first\_name, ' ', pat.middle\_name, ' ', pat.surname) as patient

from visit vis

inner join patient pat on pat.n\_card = vis.id\_patient;

--15

select vis.n\_visit, vis.visit\_date, vis.code\_srv,

concat(doc.first\_name, ' ', doc.middle\_name, ' ', doc.surname) as doctor,

concat(pat.first\_name, ' ', pat.middle\_name, ' ', pat.surname) as patient

from visit vis

inner join patient pat on pat.n\_card = vis.id\_patient

inner join doctor doc on vis.id\_doctor = doc.id\_doctor;

-- 16

-- специалисты осуществлявшие приемы с 15 по 22 сентября

select distinct concat(doc.first\_name, ' ', doc.middle\_name, ' ', doc.surname) as doctor

from doctor doc

inner join visit vis on vis.id\_doctor = doc.id\_doctor

where (vis.visit\_date >= '2022-09-15' and vis.visit\_date <= '2022-09-22');

--вакантные специальности

select title from speciality

where (title not in (

select distinct sp.title

from speciality sp

inner join doctor doc on sp.code\_spec = doc.code\_spec

));

-- =======================================

-- 3\_2

-- =======================================

--1

select doc.surname, doc.first\_name, doc.middle\_name

from visit vis

inner join doctor doc on doc.id\_doctor = vis.id\_doctor

inner join services serv on serv.code\_srv = vis.code\_srv

where serv.price = (select min(price) from services);

--2

select doc.surname, doc.first\_name, doc.middle\_name

from visit vis

inner join doctor doc on doc.id\_doctor = vis.id\_doctor

inner join patient pat on pat.n\_card = vis.id\_patient

where vis.visit\_date in (

select vis2.visit\_date

from visit vis2

inner join patient pat2 on pat2.n\_card = vis2.id\_patient

where pat2.surname like 'Безенчук' and pat2.first\_name like 'Федор' and pat2.middle\_name like 'Николаевич'

);

--3

select distinct concat(doc.first\_name, ' ', doc.middle\_name, ' ', doc.surname) as name

from visit vis

inner join doctor doc on vis.id\_doctor = doc.id\_doctor

inner join patient pat on vis.id\_patient = pat.n\_card

where (

pat.surname like 'Паниковский' or

pat.surname like 'Щукина' or

pat.surname like 'Корейко'

);

--4

select distinct concat(doc.first\_name, ' ', doc.middle\_name, ' ', doc.surname) as name

from visit vis

inner join doctor doc on vis.id\_doctor = doc.id\_doctor

where vis.visit\_date = any('{2022-09-15, 2022-09-20, 2022-09-24}'::date[]);

--5

select distinct id\_doctor

from visit

where code\_srv in

(select code\_srv

from visit

where visit\_date = any ('{2022-09-12, 2022-09-13}'::date[])

);

--6

select vis.visit\_date

from visit vis

group by vis.visit\_date

having (

(select avg(price) from services) <

(

select avg(serv.price) as avg\_price

from visit vis2

inner join services serv on serv.code\_srv = vis2.code\_srv

where vis.visit\_date = vis2.visit\_date)

);

--7

select doc.code\_spec, doc.surname, doc.id\_doctor

from doctor doc

inner join visit vis on doc.id\_doctor = vis.id\_doctor

where vis.visit\_date in (

select vis.visit\_date from visit vis where vis.visit\_date between '2022-09-15' and '2022-09-20'

);

--8

select sp.code\_spec

from visit v

inner join doctor d on d.id\_doctor = v.id\_doctor

inner join speciality sp on sp.code\_spec = d.code\_spec

inner join services s on s.code\_srv = v.code\_srv

where exists(select 1 from services s2 where s2.code\_srv >= 110 and s2.code\_srv <= 150)

group by sp.code\_spec order by sp.code\_spec asc;

--9

select s.code\_spec

from visit v

inner join doctor d on d.id\_doctor = v.id\_doctor

inner join speciality s on s.code\_spec = d.code\_spec

where exists(select 1 from visit v2 where v.visit\_date <= '2022-09-15'::date or v.visit\_date >= '2022-09-20'::date)

group by s.code\_spec order by s.code\_spec asc;

--10

select (

select spec.title

from speciality spec

where spec.code\_spec = doc.code\_spec

) as speciality,

concat(first\_name, ' ', middle\_name, ' ', surname) as name

from doctor doc

group by speciality, name;

--11

select cast(avg(serv.price) as int8)

from visit vis

inner join services serv on vis.code\_srv = serv.code\_srv

group by vis.visit\_date;

--12

select title, price,

case

when(price < 5) then 1

when(price >= 5 and price < 10) then 2

when(price >= 10 and price < 50 ) then 3

else 4

end as price\_group

from services

order by price;

--13

select n\_card, case when n\_card <= 200000 then concat('AM', cast(n\_card as varchar(30)))

else concat('NV', cast(n\_card as varchar(30)))

end

from patient;

--14

select

surname,

coalesce(first\_name, ' '),

coalesce(middle\_name, ' ')

from doctor;