

**МИНИСТЕРСТВО ЦИФРОВОГО РАЗВИТИЯ, СВЯЗИ И
МАССОВЫХ КОММУНИКАЦИЙ РОССИЙСКОЙ ФЕДЕРАЦИИ
Ордена Трудового Красного Знамени федеральное
государственное бюджетное образовательное
учреждение высшего образования
«Московский технический университет связи и информатики»**

**Кафедра «Математическая кибернетика и информационные
технологии»**

**Лабораторная работа № 8
Создание визуального интерфейса
для базы данных
по дисциплине
«Введение в информационные технологии»**

**Выполнил: студент гр. БВТ2201
Шамсутдинов Р.Ф.**

Проверил:

Москва, 2023 г

https://github.com/Sypoo1/VVIT/blob/main/laba_8/main.py

Кода очень много, поэтому не буду вставлять его в отчет, его можно посмотреть на гитхабе, в отчете будет продемонстрирована только работа приложения

В приложении доступны три вкладки с таблицами, в каждой таблице можно удалить, отредактировать или добавить строку, после чего информация во все таблицах автоматически обновится

Schedule

Schedule

Subjects

Teachers

Monday

Tuesday

Wednesday

Thursday

Friday

Week	Subject	Classroom	Time	Join	Delete
1 Чётная	Higher mathematics	308	13:10	Join	Delete
2 Чётная	Gaming sports	спортзал	15:25	Join	Delete
3 Чётная	English	450	17:15	Join	Delete
4 Нечётная	English	412	13:10	Join	Delete
5 Нечётная	English	412	13:10	Join	Delete
6 Нечётная	Higher mathematics	314	15:25	Join	Delete
7 Нечётная	German	301	17:15	Join	Delete
8				ADD	

Update

Shedule

Shedule

Subjects

Teachers

Monday

Tuesday

Wednesday

Thursday

Friday

Week	Subject	Classroom	Time	Join	Delete
1 Чётная	Gaming sports	спортзал	09:30	Join	Delete
2 Чётная	History	318	11:20	Join	Delete
3 Нечётная	Introduction into IT	203	09:30	Join	Delete
4 Нечётная	The basics of DevOps	302	11:20	Join	Delete
5				ADD	

Update

Shedule

Shedule

Subjects

Teachers

Monday

Tuesday

Wednesday

Thursday

Friday

Week	Subject	Classroom	Time	Join	Delete
1 Чётная	The basics of DevOps	414	13:10	Join	Delete
2 Чётная	The basics of DevOps	302	15:25	Join	Delete
3 Нечётная	Gaming sports	спортзал	11:20	Join	Delete
4 Нечётная	Higher mathematics	514	13:10	Join	Delete
5				ADD	

Update

Shedule

Shedule

Subjects

Teachers

Monday

Tuesday

Wednesday

Thursday

Friday

Week	Subject	Classroom	Time	Join	Delete
1 Четная	History	318	15:25	Join	Delete
2 Нечётная	History	318	11:20	Join	Delete
3 Нечётная	Gaming sports	спортзал	13:10	Join	Delete
4				ADD	

Update

Shedule
— □ ×

Shedule
Subjects
Teachers

Monday
Tuesday
Wednesday
Thursday
Friday

Week		Subject	Classroom	Time	Join	Delete
1	Чётная	Project Practice	211	11:20	Join	Delete
2	Чётная	Introduction into IT	203	13:10	Join	Delete
3	Чётная	Introduction into IT	208	15:25	Join	Delete
4	Нечётная	History	227	09:30	Join	Delete
5	Нечётная	Mathemati... basis of databases	519	15:25	Join	Delete
6	Нечётная	Mathemati... basis of databases	535	11:20	Join	Delete
7	Нечётная	Mathemati... basis of databases	401	13:10	Join	Delete
8					ADD	

Update

Shedule



Shedule

Subjects

Teachers

	Name	2	3
1	English	Join	Delete
2	Higher mathematics	Join	Delete
3	German	Join	Delete
4	Introduction into IT	Join	Delete
5	The basics of DevOps	Join	Delete
6	Gaming sports	Join	Delete
7	History	Join	Delete
8	Mathemati... basis of databases	Join	Delete
9	Project Practice	Join	Delete
10	Physics1	Join	Delete
11	sport	Join	Delete
12	run	Join	Delete
13	jump	Join	Delete
14		ADD	

Shedule					
Shedule		Subjects	Teachers		
	ID	Full_name	Subject	4	5
1	1	Лапаев Л. Л.	English	Join	Delete
2	2	Шаймарда... Л. К.	Higher mathematics	Join	Delete
3	4	Фурлетов Ю. М.	Introduction into IT	Join	Delete
4	8	Изотова А. А.	Mathemati... basis of databases	Join	Delete
5	9	Городничев М. Г.	The basics of DevOps	Join	Delete
6	10	Потапченко Т. Д.	Project Practice	Join	Delete
7	7	Скляр Л. Н	History	Join	Delete
8	11	Dima	Physics1	Join	Delete
9	12	Ivan	run	Join	Delete
10	13	Egor	jump	Join	Delete
11				ADD	

Продемонстрирую изменение строки:

Изменяю sport на sport_hard

Shedule

Subjects

Teachers

	Name	2	3
1	English	Join	Delete
2	Higher mathematics	Join	Delete
3	German	Join	Delete
4	Introduction into IT	Join	Delete
5	The basics of DevOps	Join	Delete
6	Gaming sports	Join	Delete
7	History	Join	Delete
8	Mathemati... basis of databases	Join	Delete
9	Project Practice	Join	Delete
10	Physics1	Join	Delete
11	sport_hard	Join	Delete
12	run	Join	Delete
13	jump	Join	Delete
14		ADD	

Shedule

Subjects

Teachers

	Name	2	3
1	English	Join	Delete
2	Higher mathematics	Join	Delete
3	German	Join	Delete
4	Introduction into IT	Join	Delete
5	The basics of DevOps	Join	Delete
6	Gaming sports	Join	Delete
7	History	Join	Delete
8	Mathemati... basis of databases	Join	Delete
9	Project Practice	Join	Delete
10	Physics1	Join	Delete
11	run	Join	Delete
12	jump	Join	Delete
13	sport_hard	Join	Delete
14		ADD	

```
3  
4 select * from subject;
```

Data Output Messages Notifications



	name [PK] character varying	
1	English	
2	Higher mathematics	
3	German	
4	Introduction into IT	
5	The basics of DevOps	
6	Gaming sports	
7	History	
8	Mathematical basis of databases	
9	Project Practice	
10	Physics1	
11	run	
12	jump	
13	sport_hard	

Удаляю run

3

4

select * from subjects

Shedule

Shedule

Subjects

Teachers

	Name	2	3
1	English	Join	Delete
2	Higher mathematics	Join	Delete
3	German	Join	Delete
4	Introduction into IT	Join	Delete
5	The basics of DevOps	Join	Delete
6	Gaming sports	Join	Delete
7	History	Join	Delete
8	Mathemati... basis of databases	Join	Delete
9	Project Practice	Join	Delete
10	Physics1	Join	Delete
11	run	Join	Delete
12	jump	Join	Delete
13	sport_hard	Join	Delete
14		ADD	

Data

≡+

1

2

3

4

5

6

7

8

9

10

11

12

13

Shedule			
<div>SheduleSubjectsTeachers</div>			
	Name	2	3
1	English	Join	Delete
2	Higher mathematics	Join	Delete
3	German	Join	Delete
4	Introduction into IT	Join	Delete
5	The basics of DevOps	Join	Delete
6	Gaming sports	Join	Delete
7	History	Join	Delete
8	Mathemati... basis of databases	Join	Delete
9	Project Practice	Join	Delete
10	Physics1	Join	Delete
11	jump	Join	Delete
12	sport_hard	Join	Delete
13	sport_hard	ADD	Delete

3

4 `select * from subject;`

Data Output Messages Notifications



	name [PK] character varying	
1	English	
2	Higher mathematics	
3	German	
4	Introduction into IT	
5	The basics of DevOps	
6	Gaming sports	
7	History	
8	Mathematical basis of databases	
9	Project Practice	
10	Physics1	
11	jump	
12	sport_hard	

Вместе с предметом gun удалились также и все преподаватели с данным предметом и все пары

Добавляю новую пару

Shedule

Shedule

Subjects

Teachers

Monday

Tuesday

Wednesday

Thursday

Friday

Week	Subject	Classroom	Time	Join	Delete
1 Четная	History	318	15:25	Join	Delete
2 Нечётная	History	318	11:20	Join	Delete
3 Нечётная	Gaming sports	спортзал	13:10	Join	Delete
4 Нечётная	jump	спортзал	15:25	ADD	

Update

Schedule

Schedule

Subjects

Teachers

Monday

Tuesday

Wednesday

Thursday

Friday

Week	Subject	Classroom	Time	Join	Delete
1 Четная	History	318	15:25	Join	Delete
2 Нечётная	History	318	11:20	Join	Delete
3 Нечётная	Gaming sports	спортзал	13:10	Join	Delete
4 Нечётная	jump	спортзал	15:25	Join	Delete
5				ADD	

Update

В самом низу появилась новая пара

```
5
6 select * from timetable
7
```

Data Output Messages Notifications						
	Id [PK] integer	week character varying	day character varying	subject character varying	room_num character varying	start_time character va
6	6	Нечётная	Среда	Gaming sports	спортзал	11:20
7	7	Нечётная	Среда	Higher mathematics	514	13:10
8	10	Нечётная	Четверг	History	318	11:20
9	11	Нечётная	Четверг	Gaming sports	спортзал	13:10
10	12	Нечётная	Пятница	History	227	09:30
11	13	Нечётная	Пятница	Mathematical basis of databases	535	11:20
12	14	Нечётная	Пятница	Mathematical basis of databases	401	13:10
13	15	Нечётная	Пятница	Mathematical basis of databases	519	15:25
14	17	Чётная	Понедельник	Higher mathematics	308	13:10
15	18	Чётная	Понедельник	Gaming sports	спортзал	15:25
16	20	Чётная	Вторник	Gaming sports	спортзал	09:30
17	21	Чётная	Вторник	History	318	11:20
18	23	Чётная	Среда	The basics of DevOps	414	13:10
19	24	Чётная	Среда	The basics of DevOps	302	15:25
20	25	Чётная	Пятница	Project Practice	211	11:20
21	26	Чётная	Пятница	Introduction into IT	203	13:10
22	27	Чётная	Пятница	Introduction into IT	208	15:25
23	19	Чётная	Понедельник	English	450	17:15
24	31	Четная	Четверг	History	318	15:25
25	35	Нечётная	Понедельник	English	412	13:10
26	43	Нечётная	Четверг	jump	спортзал	15:25

Вывод:

Проделав данную работу, я научился работать с базами данных, интерфейсами для них, понял логику вывода информации на экран из БД, также научился строить десктопное приложение с таблицами и страницами, обрабатывать множество исключений, проектировать архитектуру приложения, использовал надовно добавленный в python3.10 конструкцию match case, похожую на такую конструкцию, как switch case в c++