

STUDENT MANAGEMENT SYSTEM

DBMS PROJECT

Ambuj Porwal 236

Parth Gupta 230

Hari Hara 245

Directed By -- P Madhavan

ABSTRACT

WHAT IS STUDENT MANAGEMENT SYSTEM ?

STUDENT MANAGEMENT IS A SKILL THAT THE TEACHERS AND OTHER STAFF IN SCHOOL OR COLLEGE HAVE TO HONE OVER TIME. IT IS DEFINED AS A SKILLSET, WHICH EVERY TEACHER GAINS WITH TIME AS IT HELPS THEM IN MANAGING THE STUDENTS EFFECTIVELY.

OBJECTIVE

To store and Manage
records of student.

To store and Manage
Subjects offered

To map students with
the subject
information

IMPORTED LIBRARIES

- Tkinter
- Sqlite 3
- Pandas

WHY TKINTER ?

TKINTER IS THE STANDARD GUI LIBRARY FOR PYTHON. PYTHON WHEN COMBINED WITH TKINTER PROVIDES A FAST AND EASY WAY TO CREATE GUI APPLICATIONS. TKINTER PROVIDES A POWERFUL OBJECT-ORIENTED INTERFACE TO THE TK GUI TOOLKIT.

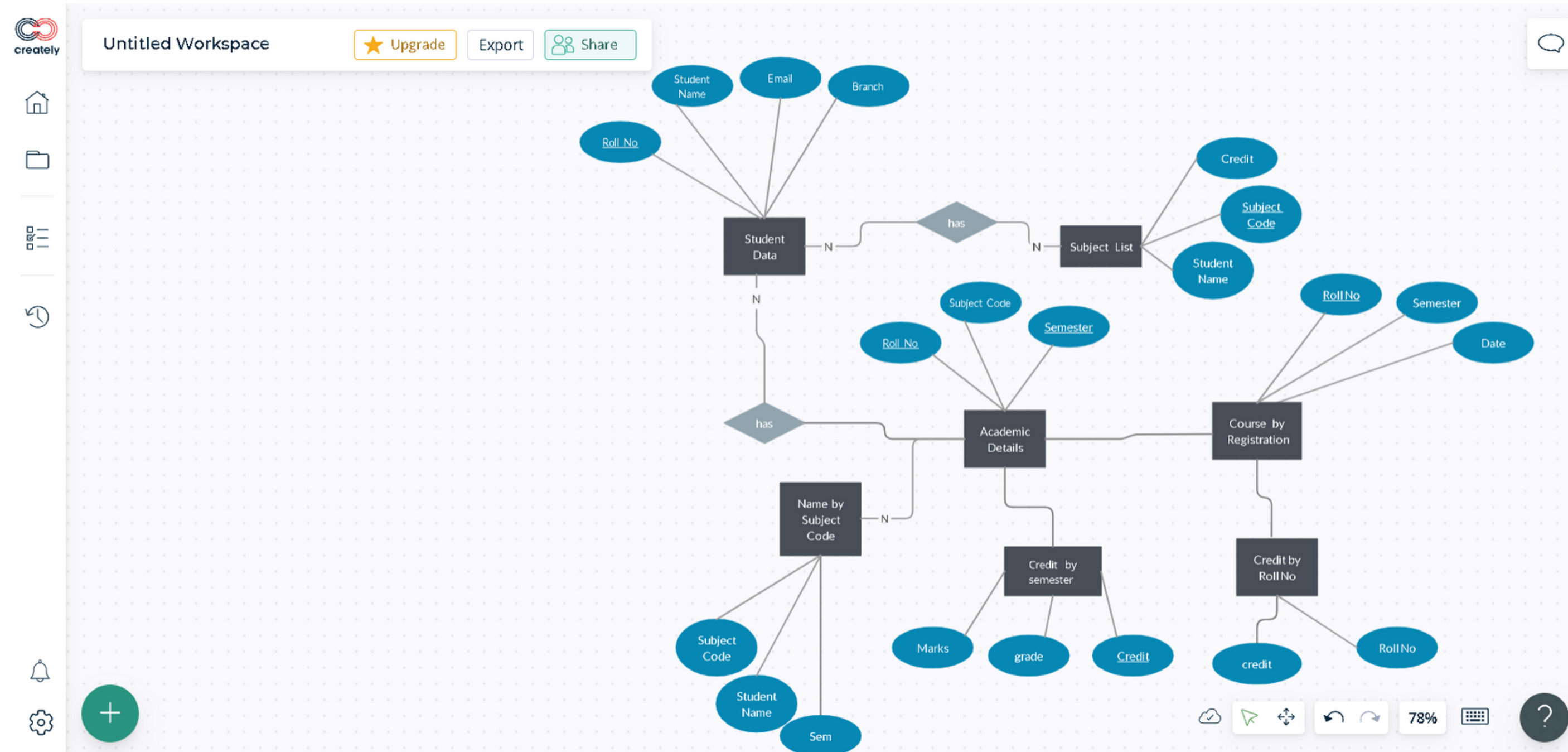
WHY SQLITE 3 ?

SQLITE IS A C LIBRARY THAT PROVIDES A LIGHTWEIGHT DISK-BASED DATABASE THAT DOESN'T REQUIRE A SEPARATE SERVER PROCESS AND ALLOWS ACCESSING THE DATABASE USING A NONSTANDARD VARIANT OF THE SQL QUERY LANGUAGE. SOME APPLICATIONS CAN USE SQLITE FOR INTERNAL DATA STORAGE.

WHY PANDAS ?

PANDAS IS ALSO VERY EFFECTIVE FOR VISUALIZING DATA TO SEE TRENDS AND PATTERNS. ALTHOUGH EXCEL'S INTERFACE FOR MAKING GRAPHS AND CHARTS IS EASY TO USE, PANDAS IS MUCH MORE MALLEABLE AND CAN DO MUCH MORE. GRAPHS ARE MUCH MORE CUSTOMIZABLE AND YOU CAN CREATE PRETTY MUCH ANY CONCEPT YOU WANT WITH PANDAS.

ER DIAGRAM



The screenshot shows a Jupyter Notebook titled "DBMS Project" with the following code:

```
cols = [column[0] for column in cursor.description]
results= pd.DataFrame.from_records(fetch, columns = cols)
print("")
print(results)

if val == 1 or val==2 or val==3:
    if __name__=='__main__':
        #Running Application
        mainloop()
```

Below the code, the output of the program is displayed:

```
Hello there welcome to the Student Management Student:
Choose task to do:
1 for Opening Student Data
2 for Opening Subject Data
3 for assigning subject to student
4 Course registered by a student in a particular semester
5 Credits by a student in a particular semester
6 Course registered by a student in total
7 Credits by a student in total
8 Name of students who enrolled in a particular subject
```

The input prompt "In []:" is shown, followed by the start of a function definition:

```
# Student Registration

{

StudentId,
```

The screenshot displays a Jupyter Notebook environment with a web application running in a browser. The notebook code on the left includes a menu for various tasks and a function to open student data. The browser window shows the application's output, which is a web form with input fields for Name, Contact, Email, Roll No, and Branch, and buttons for Search, View All, Reset, Delete, Update, and Submit. The table of student data is also visible.

Student Id	Name	Contact	Email	Rollno
1	Ambuj	1234567890	qwertyuiop	09878967896
4	Hari	678765456	esredcvb	3474545485

The screenshot displays a Jupyter Notebook environment with a Python script and a web application window.

Jupyter Notebook Code:

```
cols = [column for column in cursor.description]
results= pd.DataFrame.from_records(fetch, columns = cols)
print("")
print(results)

if val == 1 or val
if __name__ == '__main__':
    #Running Application
    mainloop()
```

Below the code, there is a text prompt: "Hello there welcome Choose task to do: 1 for opening Stud 2 for opening Subj 3 for assigning su 4 Course registere 5 Credits by a stu 6 Course registere 7 Credits by a stu 8 Name of students 2".

Web Application Window (DBMS Project):

The window displays a "Subject List" table with the following data:

Subject Code	Subject Name	Subject Credits
123	CN	3
456	Hari	4

On the left side of the window, there are input fields and buttons for searching and managing subjects:

- Code:** Enter name to Search
- Name:** Search
- Credit:** View All
- Submit** (Yellow button)
- Update** (Yellow button)
- Reset** (Pink button)
- Delete** (Pink button)
- Update** (Pink button)

The screenshot displays a Jupyter Notebook environment with a Python script for a DBMS project. The script includes a menu-driven application for student data management. A modal window titled "Academic Details" is displayed, showing a table with columns: Serial No, Student Id, and Subject. The table contains two rows of data. The interface also shows the Jupyter Notebook toolbar and the Windows taskbar at the bottom.

Python Script:

```
cols = [column for column in cursor.description]
results= pd.DataFrame.from_records(fetch, columns = cols)
print("")
print(results)

if val == 1 or val==2 or val==3:
    if __name__ == '__main__':
        #Running Application
        mainloop()

Hello there welcome to the
Choose task to do:
1 for Opening Student Data
2 for Opening Subject Data
3 for assigning subject to
4 Course registered by a s
5 Credits by a student in
6 Course registered by a s
7 Credits by a student in
8 Name of students who enr
3

# Student Registration
{
    StudentId,
```

Academic Details Table:

Serial No	Student Id	Subject
1	1	123
2	4	456

*Thank
you!*