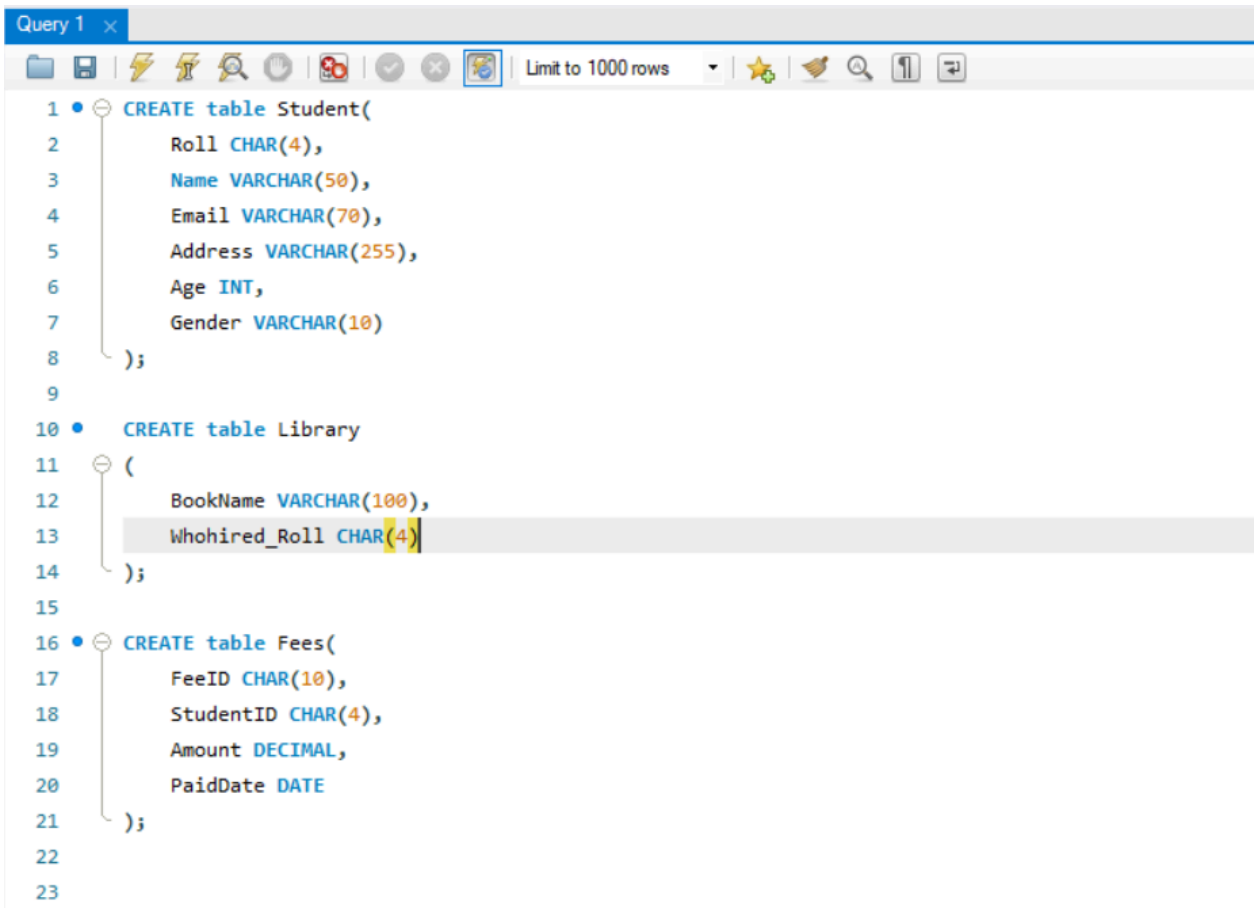
Question:

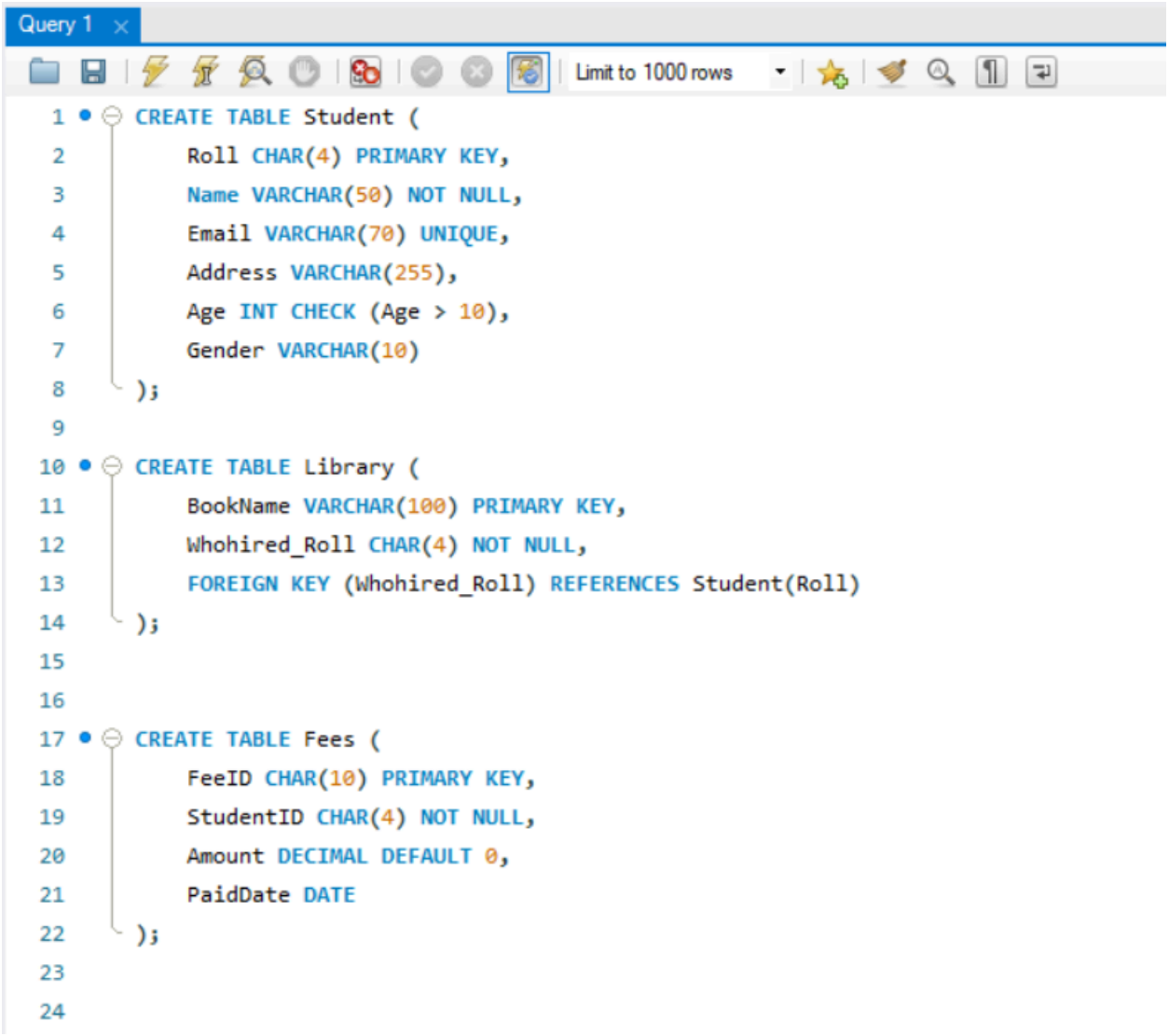
1. Create tables 15 Marks

    a. Make a student table
    b. Make a Library table
    c. Make a Fees table

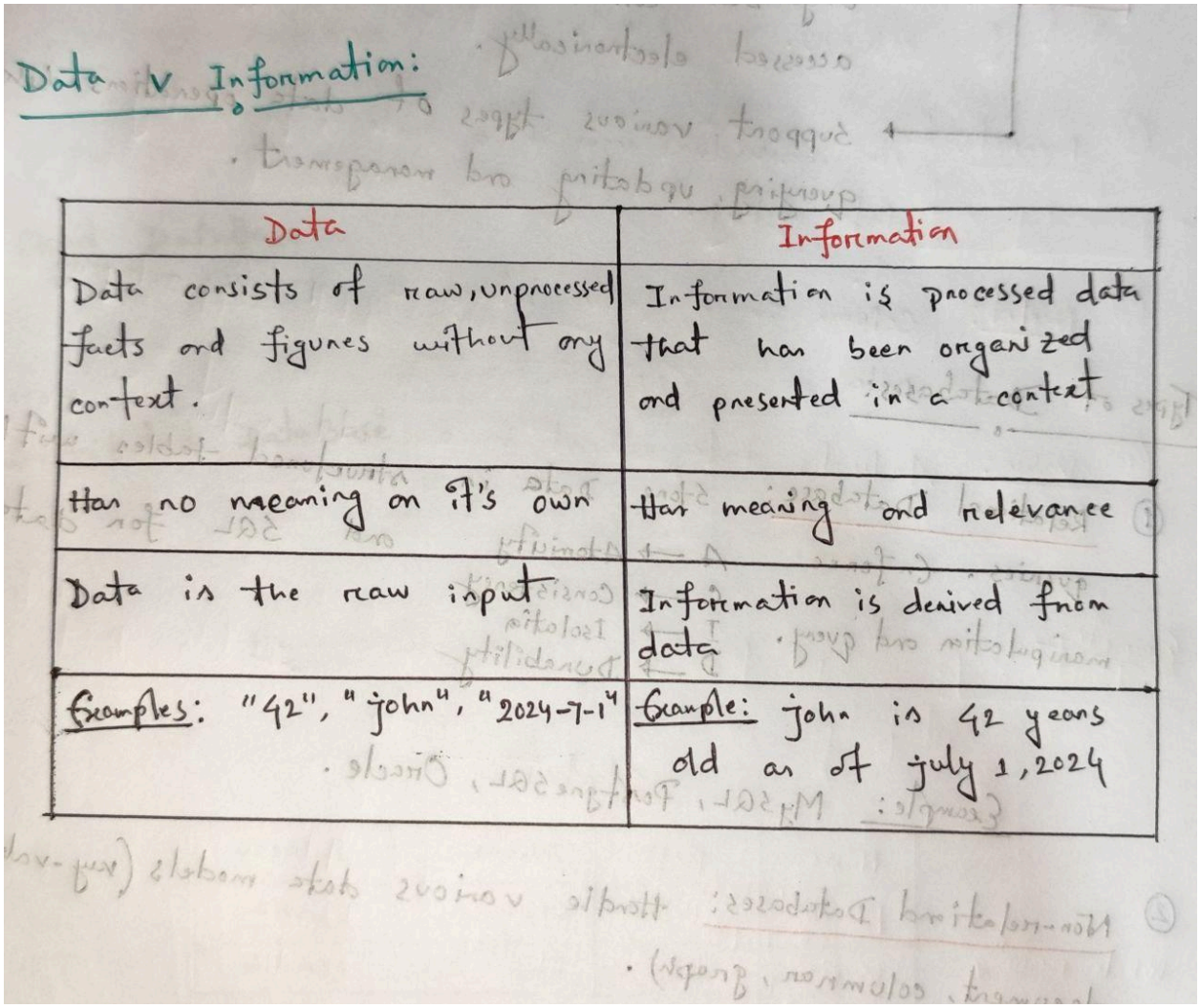
    Create table with proper relations.



2. Add proper constraints with the No 1 question - 5 Marks



3. Write the differences between data and information - 10 Marks



Data V Information:

Data	Information
Data consists of raw, unprocessed facts and figures without any context.	Information is processed data that has been organized and presented in a context
Has no meaning on it's own	Has meaning and relevance
Data is the raw input	Information is derived from data
Examples: "42", "John", "2024-7-1"	Example: John is 42 years old as of July 1, 2024

4. In MySQL, Update and Delete query wasn't executing, what was the reason and how to run those query? Write the code to enable the feature. (If you followed the class, you should know this). - 10 Marks

   Ans: The reason behind the update and delete query wasn't executing is because of SQL safe mode was ON. To run those queries we first have to turn OFF the safe mode. After update and delete query we would again turn ON the SQL safe mode for better practice.

Code :

```
SET SQL_SAFE_UPDATES = 0;
UPDATE Student
SET Name = 'Sarafat Karim'
WHERE Roll = '1';

DELETE FROM Student
WHERE Roll = '1';
SET SQL_SAFE_UPDATES = 1;
```

Answer the following questions with this table data. Table name Employee.

EmployeeID	FirstName	LastName	Age	Department
1	John	Doe	28	Sales
2	Jane	Smith	32	Marketing
3	Michael	Johnson	35	Finance
4	Sarah	Brown	30	HR
5	William	Davis	25	Engineering
6	Emily	Wilson	28	Sales
7	Robert	Lee	33	Marketing
8	Laura	Hall	29	Finance
9	Thomas	White	31	HR
10	Olivia	Clark	27	Engineering

5. Write a query to show the distinct department names - 10 Marks

```
SELECT DISTINCT Department
FROM Employee;
```

6. Write a query to show the LastNames of the employees sorted by descending ages - 10 Marks

```
SELECT LastName
FROM Employee
ORDER BY Age DESC;
```

7. Write a query to show the employee LastName whose age is greater than 30 and works in Marketing department. - 10 Marks

```
SELECT LastName
FROM Employee
Where Age > 30 AND Department = 'Marketing';
```

8. Write a query to select all the employees - 10 Marks

```
SELECT *
FROM Employee;
```

9. Write a query to get employees whose names includes ‘son’ - 10 Marks

```
SELECT *
FROM Employee
WHERE FirstName Like '%son%' OR LastName LIKE '%son%';
```

10. Write a query to get the engineers - 10 Marks

```
SELECT *
FROM Employee
WHERE Department = 'Engineering';
```