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PRN: 2020BTEIT00041

SQL DATABASE:

Tables:

1. Tables in school:

	Tables_in_school
▶	student
	subject
	teacher

2. Student table:

	roll	first_name	last_name	age	city	guide
▶	1	Om	Gharge	20	sangli	1
	2	Omkar	Birajdar	21	sangli	1
	3	Daulatrao	Patil	21	karad	2
	4	Ritesh	Wanave	19	baramati	2
	5	Dnyaneshwari	Kolapkar	20	ahmednagar	2
	6	Shrenik	Jadhav	22	sangli	4

3. Teachers table:

	tid	first_name	last_name
▶	1	Mayur	Rathi
	2	Ravindra	Rathod
	3	Prashant	Kharat
	4	Bharati	Shetty
	5	Dinesh	Kulkarni

4. Subject table:

	sub_id	sub_name	teach_id
▶	1	SC	3
	2	OS	2
	3	DMPG	5
	4	CA	4
	5	DBMS	1

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Queries:

1) Logical Operator

query = SELECT * FROM student WHERE age >20 AND age<22

	roll	first_name	last_name	age	city	guide
▶	2	Omkar	Birajdar	21	sangli	1
	3	Daulatrao	Patil	21	karad	2

2) Aggregation queries

query =SELECT first_name,MAX(age) FROM student;

To select tuple from student table with maximum age

	first_name	MAX(age)
▶	Om	22

3) Range operators

query = SELECT * FROM student WHERE roll IN(2,4);

	roll	first_name	last_name	age	city	guide
▶	2	Omkar	Birajdar	21	sangli	1
	4	Ritesh	Wanave	19	baramati	2

4) Group by clause

query = SELECT COUNT(age),age FROM student GROUP BY age;

COUNT(age)	age
2	20
2	21
1	19
1	22

5) Order by clause

query = SELECT * FROM student ORDER BY age;

	roll	first_name	last_name	age	city	guide
▶	4	Ritesh	Wanave	19	baramati	2
	1	Om	Gharge	20	sangli	1
	5	Dnyaneshwari	Kolapkar	20	ahmednagar	2
	2	Omkar	Birajdar	21	sangli	1
	3	Daulatrao	Patil	21	karad	2
	6	Shrenik	Jadhav	22	sangli	4

query = SELECT * FROM student ORDER BY age DESC;

	roll	first_name	last_name	age	city	guide
▶	6	Shrenik	Jadhav	22	sangli	4
	2	Omkar	Birajdar	21	sangli	1
	3	Daulatrao	Patil	21	karad	2
	1	Om	Gharge	20	sangli	1
	5	Dnyaneshwari	Kolapkar	20	ahmednagar	2
	4	Ritesh	Wanave	19	baramati	2

6) Having clause

SELECT * FROM student HAVING city="sangli";

	roll	first_name	last_name	age	city	guide
	1	Om	Gharge	20	sangli	1
	2	Omkar	Birajdar	21	sangli	1
	6	Shrenik	Jadhav	22	sangli	4

7) Queries based on patterns

query = SELECT * FROM student WHERE first_name LIKE "O%";

	roll	first_name	last_name	age	city	guide
▶	1	Om	Gharge	20	sangli	1
	2	Omkar	Birajdar	21	sangli	1

8) Nested Queries

query = SELECT * FROM student WHERE age > (SELECT AVG(age) FROM student);

roll	first_name	last_name	age	city	guide
2	Omkar	Birajdar	21	sangli	1
3	Daulatrao	Patil	21	karad	2
6	Shrenik	Jadhav	22	sangli	4

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Printing AVG:

Query = SELECT avg(age) as avg FROM student ;

avg
20.5000

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