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6. [30 pts] The Entity Student has the attributes: snum: integer, sname: string, major: string, level: string, age: integer. Create the table Student. Insert data listed on the file student1.csv posted on BlackBoard (folder SQL data). Write the following queries using SQL. Give the output of each query.

(a) List all data in the Student table.

SQL Command: SELECT * FROM Student;

Output:

Showing rows 0 - 23 (24 total, Query took 0.0006 seconds.)

```
SELECT * FROM Student;
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 Filter rows: Search this table Sort by key:

Extra options

←T→	snum	sname	major	level	age
Edit Copy Delete	51135593	Maria White	English	SR	21
Edit Copy Delete	60839453	Charles Harris	Architecture	SR	22
Edit Copy Delete	99354543	Susan Martin	Law	JR	20
Edit Copy Delete	112348546	Joseph Thompson	Computer Science	SO	19
Edit Copy Delete	115987938	Christopher Garcia	Computer Science	JR	20
Edit Copy Delete	132977562	Angela Martinez	History	SR	20
Edit Copy Delete	269734834	Thomas Robinson	Psychology	SO	18
Edit Copy Delete	280158572	Margaret Clark	Animal Science	FR	18
Edit Copy Delete	301221823	Juan Rodriguez	Psychology	JR	20
Edit Copy Delete	318548912	Dorthy Lewis	Finance	FR	18
Edit Copy Delete	320874981	Daniel Lee	Electrical Engineering	FR	17
Edit Copy Delete	322654189	Lisa Walker	Computer Science	SO	17
Edit Copy Delete	348121549	Paul Hall	Computer Science	JR	18

Console

☐	Edit	Copy	Delete	351565322	Nancy Allen	Accounting	JR	19
☐	Edit	Copy	Delete	451519864	Mark Young	Finance	FR	18
☐	Edit	Copy	Delete	455798411	Luis Hernandez	Electrical Engineering	FR	17
☐	Edit	Copy	Delete	462156489	Donald King	Mechanical Engineering	SO	19
☐	Edit	Copy	Delete	550156548	George Wright	Education	SR	21
☐	Edit	Copy	Delete	552455318	Ana Lopez	Computer Engineering	SR	19
☐	Edit	Copy	Delete	556784565	Kenneth Hill	Civil Engineering	SR	21
☐	Edit	Copy	Delete	567354612	Karen Scott	Computer Engineering	FR	18
☐	Edit	Copy	Delete	573284895	Steven Green	Kinesiology	SO	19
☐	Edit	Copy	Delete	574489456	Betty Adams	Economics	JR	20
☐	Edit	Copy	Delete	578875478	Edward Baker	Veterinary Medicine	SR	21

snum	sname	major	level	age
51135593	Maria White	English	SR	21
60839453	Charles Harris	Architecture	SR	22
99354543	Susan Martin	Law	JR	20
112348546	Joseph Thompson	Computer Science	SO	19
115987938	Christopher Garcia	Computer Science	JR	20
132977562	Angela Martinez	History	SR	20
269734834	Thomas Robinson	Psychology	SO	18
280158572	Margaret Clark	Animal Science	FR	18
301221823	Juan Rodriguez	Psychology	JR	20
318548912	Dorthy Lewis	Finance	FR	18
320874981	Daniel Lee	Electrical Engineering	FR	17
322654189	Lisa Walker	Computer Science	SO	17
348121549	Paul Hall	Computer Science	JR	18

351565322	Nancy Allen	Accounting	JR	19
451519864	Mark Young	Finance	FR	18
455798411	Luis Hernandez	Electrical Engineering	FR	17
462156489	Donald King	Mechanical Engineering	SO	19
550156548	George Wright	Education	SR	21
552455318	Ana Lopez	Computer Engineering	SR	19
556784565	Kenneth Hill	Civil Engineering	SR	21
567354612	Karen Scott	Computer Engineering	FR	18
573284895	Steven Green	Kinesiology	SO	19
574489456	Betty Adams	Economics	JR	20
578875478	Edward Baker	Veterinary Medicine	SR	21

(b) Report a student's name and his age.

SQL Command: SELECT S.sname, S.age FROM Student S;

Output:

Showing rows 0 - 23 (24 total, Query took 0.0004 seconds.)

```
SELECT S.sname, S.age FROM Student S;
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP co

Show all | Number of rows: 25 Filter rows:

Extra options

←T→				sname	age
Edit	Copy	Delete		Maria White	21
Edit	Copy	Delete		Charles Harris	22
Edit	Copy	Delete		Susan Martin	20
Edit	Copy	Delete		Joseph Thompson	19
Edit	Copy	Delete		Christopher Garcia	20
Edit	Copy	Delete		Angela Martinez	20
Edit	Copy	Delete		Thomas Robinson	18
Edit	Copy	Delete		Margaret Clark	18
Edit	Copy	Delete		Juan Rodriguez	20
Edit	Copy	Delete		Dorthy Lewis	18
Edit	Copy	Delete		Daniel Lee	17
Edit	Copy	Delete		Lisa Walker	17
Edit	Copy	Delete		Paul Hall	18
Edit	Copy	Delete		Nancy Allen	19
Edit	Copy	Delete		Mark Young	18
Edit	Copy	Delete		Luis Hernandez	17
Edit	Copy	Delete		Donald King	19
Edit	Copy	Delete		George Wright	21
Edit	Copy	Delete		Ana Lopez	19
Edit	Copy	Delete		Kenneth Hill	21
Edit	Copy	Delete		Karen Scott	18
Edit	Copy	Delete		Steven Green	19
Edit	Copy	Delete		Betty Adams	20
Edit	Copy	Delete		Edward Baker	21

sname age

Maria White 21

Charles Harris 22

Susan Martin 20

Joseph Thompson 19

Christopher Garcia 20

Angela Martinez 20

Thomas Robinson 18

Margaret Clark 18

Juan Rodriguez 20

Dorthy Lewis 18

Daniel Lee 17

Lisa Walker 17

Paul Hall 18

Nancy Allen 19

Mark Young 18

Luis Hernandez 17

Donald King 19

George Wright 21

Ana Lopez 19

Kenneth Hill 21

Karen Scott 18

Steven Green 19

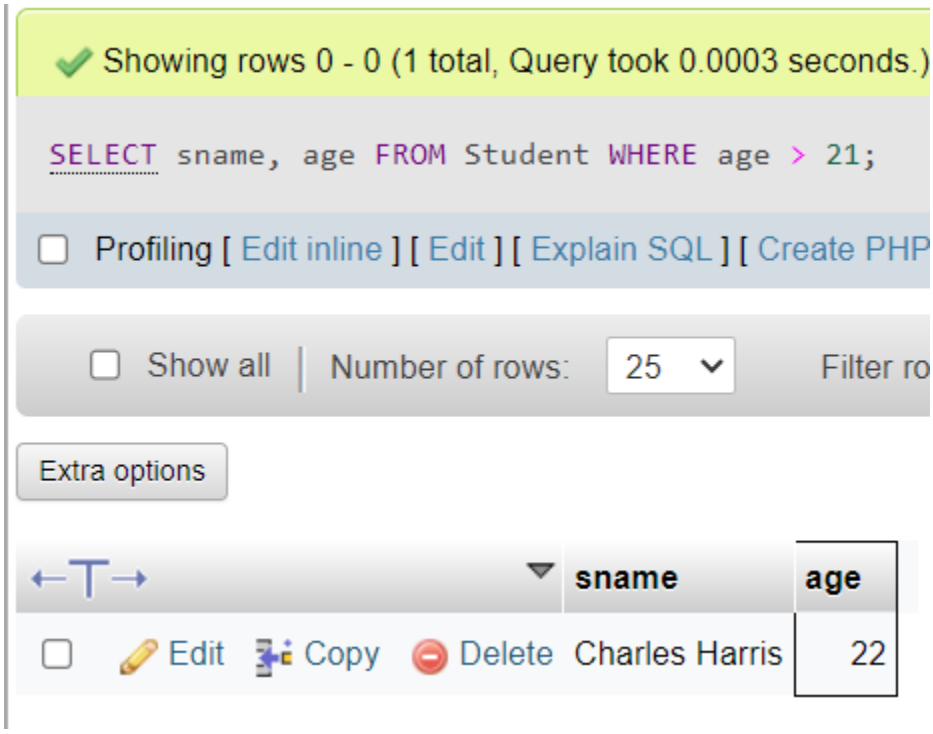
Betty Adams 20

Edward Baker 21

(c) Find all students who is older than 21 years old.

SQL Command: SELECT sname, age FROM Student WHERE age > 21;

Output:



Charles Harris 22

(d) Find the name and age of students whose level is 'SR'.

SQL Command: SELECT sname, age, level FROM Student WHERE level IN ('SR');

Output:

Showing rows 0 - 6 (7 total, Query took 0.0005 seconds.)

```
SELECT sname, age, level FROM Student WHERE level IN ('SR');
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refres

Show all | Number of rows: 25 Filter rows: Search th

Extra options

←T→				sname	age	level
Edit	Copy	Delete		Maria White	21	SR
Edit	Copy	Delete		Charles Harris	22	SR
Edit	Copy	Delete		Angela Martinez	20	SR
Edit	Copy	Delete		George Wright	21	SR
Edit	Copy	Delete		Ana Lopez	19	SR
Edit	Copy	Delete		Kenneth Hill	21	SR
Edit	Copy	Delete		Edward Baker	21	SR

sname	age	level
Maria White	21	SR
Charles Harris	22	SR
Angela Martinez	20	SR
George Wright	21	SR
Ana Lopez	19	SR
Kenneth Hill	21	SR

Edward Baker 21 SR

(e) Find the student who has student number 322654189.

SQL Command: SELECT * FROM Student WHERE snum IN ('322654189');

Output:

Showing rows 0 - 0 (1 total, Query took 0.0004 seconds.)

```
SELECT * FROM Student WHERE snum IN ('322654189');
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 Filter rows: Search this table

Extra options

	snum	sname	major	level	age
Edit Copy Delete	322654189	Lisa Walker	Computer Science	SO	17

Check all *With selected:* Edit Copy Delete Export

322654189 Lisa Walker Computer Science SO 17

(f) Find student's number and name for the major 'Computer Science'.

SQL Command: SELECT snum, sname, major FROM Student WHERE major IN ('Computer Science');

Output:

Showing rows 0 - 3 (4 total, Query took 0.0007 seconds.)

```
SELECT snum, sname, major FROM Student WHERE major IN ('Computer Science
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 Filter rows: Search this table

Extra options

←T→	snum	sname	major
Edit Copy Delete	112348546	Joseph Thompson	Computer Science
Edit Copy Delete	115987938	Christopher Garcia	Computer Science
Edit Copy Delete	322654189	Lisa Walker	Computer Science
Edit Copy Delete	348121549	Paul Hall	Computer Science

snum	sname	major
112348546	Joseph Thompson	Computer Science
115987938	Christopher Garcia	Computer Science
322654189	Lisa Walker	Computer Science
348121549	Paul Hall	Computer Science

(g) Find the student number of students whose age is younger than 18 and at level 'JR'.

SQL Command: SELECT snum, age FROM Student WHERE level IN ('JR') AND age < 18;

Output: No output because no student numbers meet this condition

MySQL returned an empty result set (i.e. zero rows). (Query took 0.0006 seconds.)

```
SELECT snum, age FROM Student WHERE level IN ('JR') AND age < 18;
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

snum	age

(h) Find the student numbers of students whose age is 17 or 22.

SQL Command: SELECT snum, age FROM Student WHERE age IN (17,22);

Showing rows 0 - 3 (4 total, Query took 0.0005 seconds.)

```
SELECT snum, age FROM Student WHERE age IN (17,22)
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP c

Show all | Number of rows: 25 Filter row

Extra options

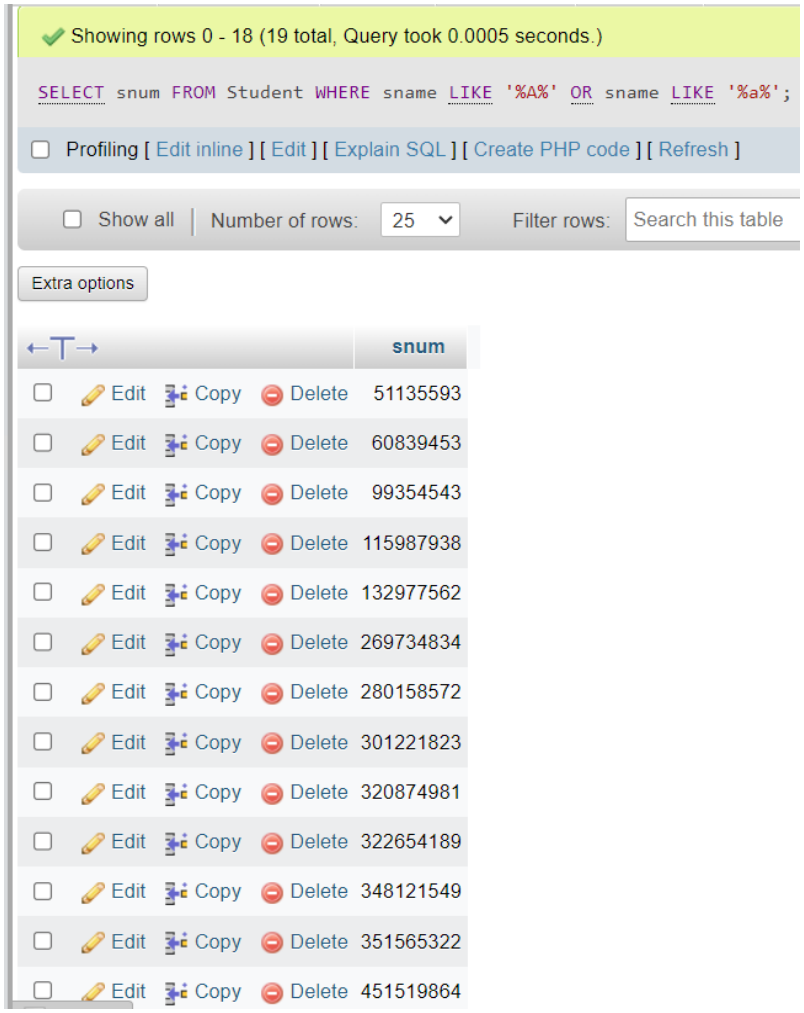
←T→			snum	age
Edit	Copy	Delete	60839453	22
Edit	Copy	Delete	320874981	17
Edit	Copy	Delete	322654189	17
Edit	Copy	Delete	455798411	17

snum	age
60839453	22
320874981	17
322654189	17
455798411	17

(i) Find the student number of students whose name contains ‘A’ or ‘a’.

SQL Command: SELECT snum FROM Student WHERE sname LIKE '%A%' OR sname LIKE '%a%';

Output:



Edit	Copy	Delete	455798411
Edit	Copy	Delete	462156489
Edit	Copy	Delete	552455318
Edit	Copy	Delete	567354612
Edit	Copy	Delete	574489456
Edit	Copy	Delete	578875478

snum

51135593

60839453

99354543

115987938

132977562

269734834

280158572

301221823

320874981

322654189

348121549

351565322

451519864

455798411

462156489

552455318

567354612

574489456

578875478

(j) Count the total number of students in the table.

SQL Command: SELECT COUNT(*) AS total FROM Student;

Output:

Your SQL query has been executed successfully

```
SELECT COUNT(*) AS total FROM Student;
```

Profiling [Edit inline] [Edit] [Explain SQL] [

Extra options

total
24

24