

In Class Exercise for Basic SQL

Exercise setup

Create this table:

army_soldiers Table

date_of_birth	given_name	family_name	Gender	skill
1980-05-05	Bob	Jones	Male	Airplane pilot
1979-12-05	Greg	Byrne	Male	electronics
1978-01-13	Nicholas	Santucci	Male	Computer programming
1983-06-07	Miguel	Sanchez	Male	Foreign Language
1982-08-09	Sarah	Domurat	Female	Airplane pilot
1980-03-05	Caroline	Rielly	Female	International Security

```
CREATE DATABASE army;

use army;

CREATE TABLE army_soldiers (
    date_of_birth date default NULL,
    given_name varchar(50) default NULL,
    family_name varchar(50) default NULL,
    gender varchar(50) default NULL,
    skill varchar(50) default NULL
);

describe army_soldiers;

INSERT into army_soldiers (date_of_birth, given_name,
family_name, gender, skill) values ('1980-05-05',
'Bob', 'Jones', 'Male', 'Airplane Pilot');
```

```
INSERT into army_soldiers (date_of_birth, given_name, family_name, gender, skill) values ('1979-12-05', 'Greg', 'Byrne', 'Male', 'Electronics');
```

```
INSERT into army_soldiers (date_of_birth, given_name, family_name, gender, skill) values ('1978-01-13', 'Nicholas', 'Santucci', 'Male', 'Computer Programming');
```

```
INSERT into army_soldiers (date_of_birth, given_name, family_name, gender, skill) values ('1983-06-07', 'Miguel', 'Sanchez', 'Male', 'Foreign Language');
```

```
INSERT into army_soldiers (date_of_birth, given_name, family_name, gender, skill) values ('1982-08-09', 'Sarah', 'Domurat', 'Female', 'Airplane Pilot');
```

```
INSERT into army_soldiers (date_of_birth, given_name, family_name, gender, skill) values ('1980-03-05', 'Caroline', 'Rielly', 'Female', 'International Security');
```

Write Queries according to the following specification

1. Show all records

```
select * from army_soldiers
```

2. Show all male airplane pilots

```
select * from army_soldiers where gender = 'male' and skill= 'airplane pilot';
```

3. Show the youngest airplane pilot

```
Select * from army_solders where skill = 'airplane pilot' and date_of_birth = (select max(date_of_Birth) from army_solders where skill = airplane_pilot);
```

4. Show all records whose family name starts with the letter 'S' or 'C'

```
select * from army_soldiers where family_name like 's%'
or 'c%';
```

```
select * from army_soldiers where family_name regexp
'^[SC].*';
```

5. Show all records which have 'yr' anywhere in the family_name field

```
select * from army_soldiers where family_name like
'%yr';
```

6. Show all records with given name containing an r (not the first letter and not the last letter) or have a skill of 'Computer Programming'

```
select * from army_soldiers where given_name like '%r%'
and given_name not like '%r' and given_name not like
'r%' or skill = 'computer programming';
```

7. Show all records ordered first by gender, then by date of birth

```
select * from army_soldiers order by gender,
date_of_birth asc
```

8. Show the total count of all records in the table

```
select count(*) from army_soldiers;
```

9. Show the oldest male soldier

```
select * from army_soldiers where date_of_birth=(select
min(date_of_birth) from army_soldiers where gender='male') and gender
= 'male';
```

10. Show the total counts of males and females

```
select count(*) from army_soldiers group by gender;
```

11. Show the total counts for each skill

```
select skill,count(*) from army_soldiers group by skill
```

12. Update caroline rielly and change her skill to 'hand-to-hand combat'

```
select skill,count(*) from army_soldiers group by skill
```

13. Delete the row with Miguel Sanchez

```
delete from army_soldiers where given_name= 'miguel' and family_name ='reilly';
```

14. Update Sarah Domurat change her date of birth to August 10, 1982 and change her skill to 'Helicopter Pilot' IN ONE SQL STATEMENT

```
update army_soldiers set date_of_birth = '1982-08-10',skill='Helicopter Pilot' where given_name='sarah' and family_name='domurat';
```

15. Show all soldiers with birthdays between May 5, 1980 and August 9, 1982. Use the **BETWEEN** operator

```
select * from army_soldiers where date_of_birth between '1980-05-05' AND '1982-08-02'
```

16. Show all soldiers with given names that are equal to 'Bob' or 'Sarah'. Use the **IN** operator

```
select * from soldiers where given_name in('Bob', 'Sarah');
```

17. Show all soldiers with family names between 'A' and 'M'. Use the **BETWEEN** operator.

```
select * from army_soldiers where family_name between 'A' and 'M';
```

18. Show all but the first record for males ordered oldest to youngest

```
select * from army_soldiers where gender = 'male' order by date_of_birth limit 1,100;
```

19. Show the list of skills that are in the table. Each skill should only be listed once.

```
select distinct(skill) from army_soldiers;
```