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

1. Show all male airplane pilots

select \* from army\_soldiers where gender = ‘male’ and skill= ‘airplane pilot’;

1. 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);

1. 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].\*’;

1. Show all records which have ‘yr’ anywhere in the family\_name field

select \* from army\_soldiers where family\_name like ’%yr’;

1. 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’;

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

select \* from army\_solders order by gender, date\_of\_birth asc

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

select count(\*) from army\_soldiers;

1. 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’;

1. Show the total counts of males and females

select count(\*) from army\_soldiers group by gender;

1. Show the total counts for each skill

select skill,count(\*) from army\_soldiers group by skill

1. Update caroline rielly and change her skill to ‘hand-to-hand combat’

select skill,count(\*) from army\_soldiers group by skill

1. Delete the row with Miguel Sanchez

delete from army\_soldiers where given\_name= ‘miguel’ and family\_name =’reilly’;

1. 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’;

1. 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’

1. 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’);

1. 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’;

1. 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;

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

select distinct(skill) from army\_soldiers;