



Tecnológico de Monterrey

Homework 2.2

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Subject:

Advanced Databases

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ITESM Campus Puebla

1. Instructions

Consider the following superhero list:

1. Batman
2. Superman
3. Spiderman
4. Ironman
5. Captain America
6. Hulk
7. Flash
8. Wonder woman
9. Green lantern
10. Thor
11. Aquaman
12. Green arrow
13. Nightwing
14. Black widow
15. Wolverine
16. Black panther
17. Atom
18. Antman
19. Storm
20. Cyclops

Create the superheroes PostgreSQL database in the server. including the following data: (do your own research)

name	real_name	editorial	first appearance (year)	creator(s)
------	-----------	-----------	-------------------------	------------

Write the following queries:

1. Show all the information

2. Show all the Marvel Superheroes (with all the attributes)
3. Show all the superheroes introduced in 1950 or earlier (with all the attributes)
4. Show all the superheroes sorted by real_name
5. show all the superheroes created by Stan Lee

2. Queries

```
SELECT s.name AS superhero,
       s.real_name AS real_name,
       s.editorial AS editorial,
       s.first_appearance AS debut,
       c.name AS creator
FROM superheroes s
INNER JOIN superheroes_creators sc ON sc.id_superheroes = s.id
INNER JOIN creators c ON sc.id_creator = c.id;
```

Query 1. Query to show all information

```
SELECT s.name AS Superhero,
       s.real_name AS Real_Name,
       s.editorial AS Editorial,
       s.first_appearance AS Debut,
       c.name AS Creator
FROM superheroes s
INNER JOIN superheroes_creators sc ON sc.id_superheroes = s.id
INNER JOIN creators c ON sc.id_creator = c.id
WHERE s.editorial = 'Marvel_Comics';
```

Query 2. Query to show all the Marvel Superheroes with all the attributes

```
SELECT s.name AS Superhero,
       s.real_name AS Real_Name,
       s.editorial AS Editorial,
       s.first_appearance AS Debut,
       c.name AS Creator
FROM superheroes s
INNER JOIN superheroes_creators sc ON sc.id_superheroes = s.id
INNER JOIN creators c ON sc.id_creator = c.id
WHERE s.first_appearance >= 1950;
```

Query 3. Query to show all the superheroes introduced in 1950 or earlier with all the attributes

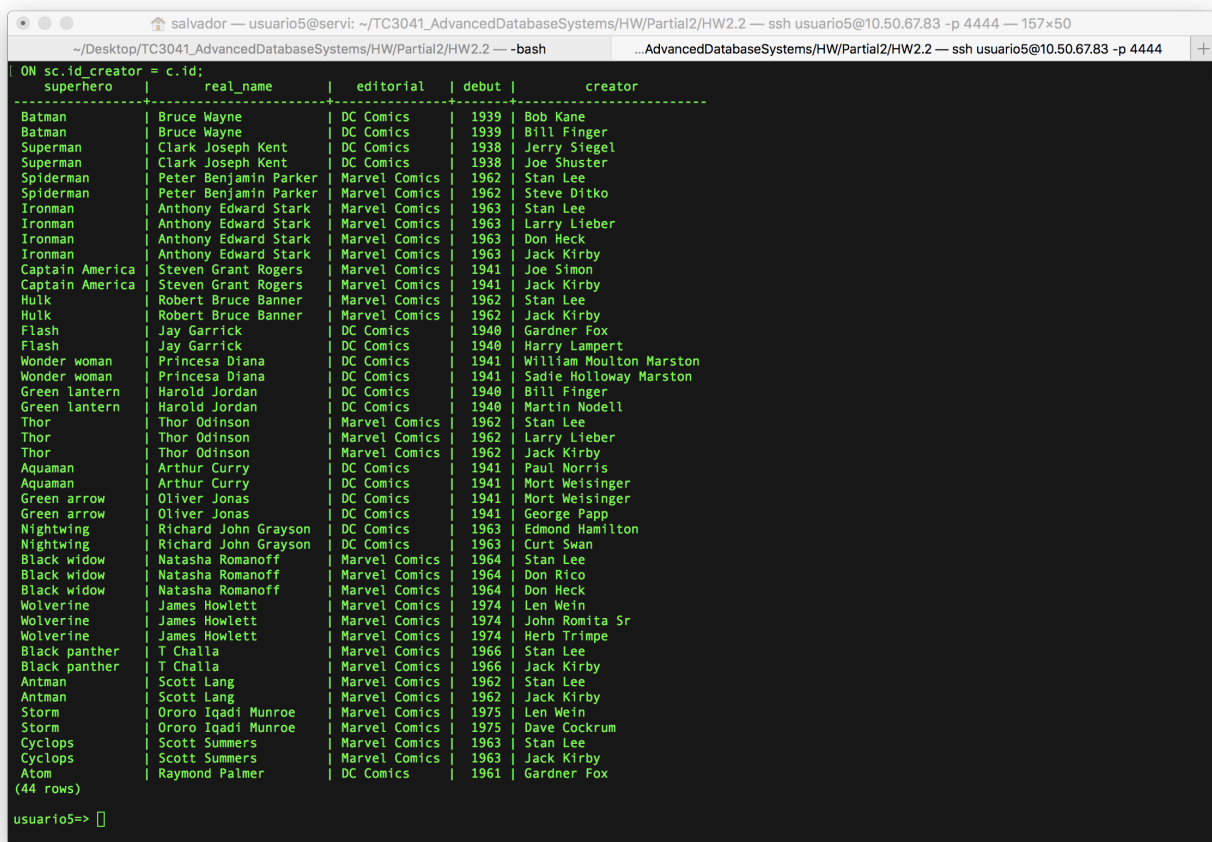
```
SELECT s.name AS Superhero,
       s.real_name AS Real_Name,
       s.editorial AS Editorial,
       s.first_appearance AS Debut,
       c.name AS Creator
FROM superheroes s
INNER JOIN superheroes_creators sc ON sc.id_superheroes = s.id
INNER JOIN creators c ON sc.id_creator = c.id
ORDER BY real_name;
```

Query 4. Query to show all the superheroes sorted by real_name

```
SELECT s.name AS Superhero,  
       s.real_name AS Real_Name,  
       s.editorial AS Editorial,  
       s.first_appearance AS Debut,  
       c.name AS Creator  
FROM superheroes s  
INNER JOIN superheroes_creators sc ON sc.id_superheroes = s.id  
INNER JOIN creators c ON sc.id_creator = c.id  
WHERE sc.id_creator = 5;
```

Query 5. Query to show all the superheroes created by Stan Lee

3. Queries Screenshots



superhero	real_name	editorial	debut	creator
Batman	Bruce Wayne	DC Comics	1939	Bob Kane
Batman	Bruce Wayne	DC Comics	1939	Bill Finger
Superman	Clark Joseph Kent	DC Comics	1938	Jerry Siegel
Superman	Clark Joseph Kent	DC Comics	1938	Joe Shuster
Spiderman	Peter Benjamin Parker	Marvel Comics	1962	Stan Lee
Spiderman	Peter Benjamin Parker	Marvel Comics	1962	Steve Ditko
Ironman	Anthony Edward Stark	Marvel Comics	1963	Stan Lee
Ironman	Anthony Edward Stark	Marvel Comics	1963	Larry Lieber
Ironman	Anthony Edward Stark	Marvel Comics	1963	Don Heck
Ironman	Anthony Edward Stark	Marvel Comics	1963	Jack Kirby
Captain America	Steven Grant Rogers	Marvel Comics	1941	Joe Simon
Captain America	Steven Grant Rogers	Marvel Comics	1941	Jack Kirby
Hulk	Robert Bruce Banner	Marvel Comics	1962	Stan Lee
Hulk	Robert Bruce Banner	Marvel Comics	1962	Jack Kirby
Flash	Jay Garrick	DC Comics	1940	Gardner Fox
Flash	Jay Garrick	DC Comics	1940	Harry Lampert
Wonder woman	Princesa Diana	DC Comics	1941	William Moulton Marston
Wonder woman	Princesa Diana	DC Comics	1941	Sadie Holloway Marston
Green lantern	Harold Jordan	DC Comics	1940	Bill Finger
Green lantern	Harold Jordan	DC Comics	1940	Martin Nodell
Thor	Thor Odinson	Marvel Comics	1962	Stan Lee
Thor	Thor Odinson	Marvel Comics	1962	Larry Lieber
Thor	Thor Odinson	Marvel Comics	1962	Jack Kirby
Aquaman	Arthur Curry	DC Comics	1941	Paul Norris
Aquaman	Arthur Curry	DC Comics	1941	Mort Weisinger
Green arrow	Oliver Jonas	DC Comics	1941	Mort Weisinger
Green arrow	Oliver Jonas	DC Comics	1941	George Papp
Nightwing	Richard John Grayson	DC Comics	1963	Edmond Hamilton
Nightwing	Richard John Grayson	DC Comics	1963	Curt Swan
Black widow	Natasha Romanoff	Marvel Comics	1964	Stan Lee
Black widow	Natasha Romanoff	Marvel Comics	1964	Don Rico
Black widow	Natasha Romanoff	Marvel Comics	1964	Don Heck
Wolverine	James Howlett	Marvel Comics	1974	Len Wein
Wolverine	James Howlett	Marvel Comics	1974	John Romita Sr
Wolverine	James Howlett	Marvel Comics	1974	Herb Trimpe
Black panther	T Challa	Marvel Comics	1966	Stan Lee
Black panther	T Challa	Marvel Comics	1966	Jack Kirby
Antman	Scott Lang	Marvel Comics	1962	Stan Lee
Antman	Scott Lang	Marvel Comics	1962	Jack Kirby
Storm	Ororo Iqadi Munroe	Marvel Comics	1975	Len Wein
Storm	Ororo Iqadi Munroe	Marvel Comics	1975	Dave Cockrum
Cyclops	Scott Summers	Marvel Comics	1963	Stan Lee
Cyclops	Scott Summers	Marvel Comics	1963	Jack Kirby
Atom	Raymond Palmer	DC Comics	1961	Gardner Fox

Figura 1: Query 1 result

```
salvador — usuario5@servi: ~/TC3041_AdvancedDatabaseSystems/HW/Partial2/HW2.2 — ssh usuario5@10.50.67.83 -p 4444 — 157x50
~/Desktop/TC3041_AdvancedDatabaseSystems/HW/Partial2/HW2.2 — -bash ...AdvancedDatabaseSystems/HW/Partial2/HW2.2 — ssh usuario5@10.50.67.83 -p 4444 +
usuario5> SELECT s.name AS Superhero,
s.real_name AS Real_Name,
s.editorial AS Editorial,
s.first_appearance AS Debut,
c.name AS Creator
FROM superheroes s
INNER JOIN superheroes_creators sc
ON sc.id_superheroes = s.id
INNER JOIN creators c
ON sc.id_creator = c.id
WHERE s.editorial = 'Marvel Comics';

```

superhero	real_name	editorial	debut	creator
Spiderman	Peter Benjamin Parker	Marvel Comics	1962	Stan Lee
Spiderman	Peter Benjamin Parker	Marvel Comics	1962	Steve Ditko
Ironman	Anthony Edward Stark	Marvel Comics	1963	Stan Lee
Ironman	Anthony Edward Stark	Marvel Comics	1963	Larry Lieber
Ironman	Anthony Edward Stark	Marvel Comics	1963	Don Heck
Ironman	Anthony Edward Stark	Marvel Comics	1963	Jack Kirby
Captain America	Steven Grant Rogers	Marvel Comics	1941	Joe Simon
Captain America	Steven Grant Rogers	Marvel Comics	1941	Jack Kirby
Hulk	Robert Bruce Banner	Marvel Comics	1962	Stan Lee
Hulk	Robert Bruce Banner	Marvel Comics	1962	Jack Kirby
Thor	Thor Odinson	Marvel Comics	1962	Stan Lee
Thor	Thor Odinson	Marvel Comics	1962	Larry Lieber
Thor	Thor Odinson	Marvel Comics	1962	Jack Kirby
Black widow	Natasha Romanoff	Marvel Comics	1964	Stan Lee
Black widow	Natasha Romanoff	Marvel Comics	1964	Don Rico
Black widow	Natasha Romanoff	Marvel Comics	1964	Don Heck
Wolverine	James Howlett	Marvel Comics	1974	Len Wein
Wolverine	James Howlett	Marvel Comics	1974	John Romita Sr
Wolverine	James Howlett	Marvel Comics	1974	Herb Trimpe
Black panther	T Challa	Marvel Comics	1966	Stan Lee
Black panther	T Challa	Marvel Comics	1966	Jack Kirby
Antman	Scott Lang	Marvel Comics	1962	Stan Lee
Antman	Scott Lang	Marvel Comics	1962	Jack Kirby
Storm	Ororo Iqadi Munroe	Marvel Comics	1975	Len Wein
Storm	Ororo Iqadi Munroe	Marvel Comics	1975	Dave Cockrum
Cyclops	Scott Summers	Marvel Comics	1963	Stan Lee
Cyclops	Scott Summers	Marvel Comics	1963	Jack Kirby

```
(27 rows)
usuario5>
```

Figura 2: *Query 2 result*

```
salvador — usuario5@servi: ~/TC3041_AdvancedDatabaseSystems/HW/Partial2/HW2.2 — ssh usuario5@10.50.67.83 -p 4444 — 157x50
~/Desktop/TC3041_AdvancedDatabaseSystems/HW/Partial2/HW2.2 — -bash ...AdvancedDatabaseSystems/HW/Partial2/HW2.2 — ssh usuario5@10.50.67.83 -p 4444 +
usuario5> SELECT s.name AS Superhero,
usuario5> s.real_name AS Real_Name,
usuario5> s.editorial AS Editorial,
usuario5> s.first_appearance AS Debut,
usuario5> c.name AS Creator
usuario5> FROM superheroes s
usuario5> INNER JOIN superheroes_creators sc
usuario5> ON sc.id_superheroes = s.id
usuario5> INNER JOIN creators c
usuario5> ON sc.id_creator = c.id
usuario5> WHERE s.first_appearance >= 1950;
+-----+-----+-----+-----+-----+
| superhero | real_name | editorial | debut | creator |
+-----+-----+-----+-----+-----+
| Cyclops | Scott Summers | Marvel Comics | 1963 | Stan Lee |
| Antman | Scott Lang | Marvel Comics | 1962 | Stan Lee |
| Black panther | T Challa | Marvel Comics | 1966 | Stan Lee |
| Black widow | Natasha Romanoff | Marvel Comics | 1964 | Stan Lee |
| Thor | Thor Odinson | Marvel Comics | 1962 | Stan Lee |
| Hulk | Robert Bruce Banner | Marvel Comics | 1962 | Stan Lee |
| Ironman | Anthony Edward Stark | Marvel Comics | 1963 | Stan Lee |
| Spiderman | Peter Benjamin Parker | Marvel Comics | 1962 | Stan Lee |
| Spiderman | Peter Benjamin Parker | Marvel Comics | 1962 | Steve Ditko |
| Thor | Thor Odinson | Marvel Comics | 1962 | Larry Lieber |
| Ironman | Anthony Edward Stark | Marvel Comics | 1963 | Larry Lieber |
| Black widow | Natasha Romanoff | Marvel Comics | 1964 | Don Heck |
| Ironman | Anthony Edward Stark | Marvel Comics | 1963 | Don Heck |
| Cyclops | Scott Summers | Marvel Comics | 1963 | Jack Kirby |
| Antman | Scott Lang | Marvel Comics | 1962 | Jack Kirby |
| Black panther | T Challa | Marvel Comics | 1966 | Jack Kirby |
| Thor | Thor Odinson | Marvel Comics | 1962 | Jack Kirby |
| Hulk | Robert Bruce Banner | Marvel Comics | 1962 | Jack Kirby |
| Ironman | Anthony Edward Stark | Marvel Comics | 1963 | Jack Kirby |
| Atom | Raymond Palmer | DC Comics | 1961 | Gardner Fox |
| Nightwing | Richard John Grayson | DC Comics | 1963 | Edmond Hamilton |
| Nightwing | Richard John Grayson | DC Comics | 1963 | Curt Swan |
| Black widow | Natasha Romanoff | Marvel Comics | 1964 | Don Rico |
| Storm | Ororo Iqadi Munroe | Marvel Comics | 1975 | Len Wein |
| Wolverine | James Howlett | Marvel Comics | 1974 | Len Wein |
| Wolverine | James Howlett | Marvel Comics | 1974 | John Romita Sr |
| Wolverine | James Howlett | Marvel Comics | 1974 | Herb Trimpe |
| Storm | Ororo Iqadi Munroe | Marvel Comics | 1975 | Dave Cockrum |
(28 rows)
usuario5>
```

Figura 3: *Query 3 result*

```
salvador — usuario5@servi: ~/TC3041_AdvancedDatabaseSystems/HW/Partial2/HW2.2 — ssh usuario5@10.50.67.83 -p 4444 — 157x50
~/Desktop/TC3041_AdvancedDatabaseSystems/HW/Partial2/HW2.2 — -bash ...AdvancedDatabaseSystems/HW/Partial2/HW2.2 — ssh usuario5@10.50.67.83 -p 4444 +
usuario5-> ORDER BY real_name;
superhero | real_name | editorial | debut | creator
-----|-----|-----|-----|-----
Ironman | Anthony Edward Stark | Marvel Comics | 1963 | Jack Kirby
Ironman | Anthony Edward Stark | Marvel Comics | 1963 | Stan Lee
Ironman | Anthony Edward Stark | Marvel Comics | 1963 | Don Heck
Ironman | Anthony Edward Stark | Marvel Comics | 1963 | Larry Lieber
Aquaman | Arthur Curry | DC Comics | 1941 | Paul Norris
Aquaman | Arthur Curry | DC Comics | 1941 | Mort Weisinger
Batman | Bruce Wayne | DC Comics | 1939 | Bob Kane
Batman | Bruce Wayne | DC Comics | 1939 | Bill Finger
Superman | Clark Joseph Kent | DC Comics | 1938 | Joe Shuster
Superman | Clark Joseph Kent | DC Comics | 1938 | Jerry Siegel
Green lantern | Harold Jordan | DC Comics | 1940 | Martin Nodell
Green lantern | Harold Jordan | DC Comics | 1940 | Bill Finger
Wolverine | James Howlett | Marvel Comics | 1974 | John Romita Sr
Wolverine | James Howlett | Marvel Comics | 1974 | Herb Trimpe
Wolverine | James Howlett | Marvel Comics | 1974 | Len Wein
Flash | Jay Garrick | DC Comics | 1940 | Gardner Fox
Flash | Jay Garrick | DC Comics | 1940 | Harry Lampert
Black widow | Natasha Romanoff | Marvel Comics | 1964 | Don Rico
Black widow | Natasha Romanoff | Marvel Comics | 1964 | Don Heck
Black widow | Natasha Romanoff | Marvel Comics | 1964 | Stan Lee
Green arrow | Oliver Jonas | DC Comics | 1941 | Mort Weisinger
Green arrow | Oliver Jonas | DC Comics | 1941 | George Papp
Storm | Ororo Iqadi Munroe | Marvel Comics | 1975 | Len Wein
Storm | Ororo Iqadi Munroe | Marvel Comics | 1975 | Dave Cockrum
Spiderman | Peter Benjamin Parker | Marvel Comics | 1962 | Stan Lee
Spiderman | Peter Benjamin Parker | Marvel Comics | 1962 | Steve Ditko
Wonder woman | Princesa Diana | DC Comics | 1941 | Sadie Holloway Marston
Wonder woman | Princesa Diana | DC Comics | 1941 | William Moulton Marston
Atom | Raymond Palmer | DC Comics | 1961 | Gardner Fox
Nightwing | Richard John Grayson | DC Comics | 1963 | Edmond Hamilton
Nightwing | Richard John Grayson | DC Comics | 1963 | Curt Swan
Hulk | Robert Bruce Banner | Marvel Comics | 1962 | Jack Kirby
Hulk | Robert Bruce Banner | Marvel Comics | 1962 | Stan Lee
Antman | Scott Lang | Marvel Comics | 1962 | Stan Lee
Antman | Scott Lang | Marvel Comics | 1962 | Jack Kirby
Cyclops | Scott Summers | Marvel Comics | 1963 | Jack Kirby
Cyclops | Scott Summers | Marvel Comics | 1963 | Stan Lee
Captain America | Steven Grant Rogers | Marvel Comics | 1941 | Joe Simon
Captain America | Steven Grant Rogers | Marvel Comics | 1941 | Jack Kirby
Black panther | T Challa | Marvel Comics | 1966 | Stan Lee
Black panther | T Challa | Marvel Comics | 1966 | Jack Kirby
Thor | Thor Odinson | Marvel Comics | 1962 | Jack Kirby
Thor | Thor Odinson | Marvel Comics | 1962 | Stan Lee
Thor | Thor Odinson | Marvel Comics | 1962 | Larry Lieber
(44 rows)
usuario5=>
```

Figura 4: Query 4 result

```
salvador — usuario5@servi: ~/TC3041_AdvancedDatabaseSystems/HW/Partial2/HW2.2 — ssh usuario5@10.50.67.83 -p 4444 — 157x50
~/Desktop/TC3041_AdvancedDatabaseSystems/HW/Partial2/HW2.2 — -bash ...AdvancedDatabaseSystems/HW/Partial2/HW2.2 — ssh usuario5@10.50.67.83 -p 4444 +
usuario5=> SELECT s.name AS Superhero,
usuario5->      s.real_name AS Real_Name,
usuario5->      s.editorial AS Editorial,
usuario5->      s.first_appearance AS Debut,
usuario5->      c.name AS Creator
usuario5-> FROM superheroes s
usuario5-> INNER JOIN superheroes_creators sc
usuario5-> ON sc.id_superheroes = s.id
usuario5-> INNER JOIN creators c
usuario5-> ON sc.id_creator = c.id
usuario5-> WHERE sc.id_creator = 5;
superhero |      real_name      | editorial | debut | creator
-----|-----|-----|-----|-----
Spiderman | Peter Benjamin Parker | Marvel Comics | 1962 | Stan Lee
Ironman   | Anthony Edward Stark  | Marvel Comics | 1963 | Stan Lee
Hulk      | Robert Bruce Banner   | Marvel Comics | 1962 | Stan Lee
Thor      | Thor Odinson          | Marvel Comics | 1962 | Stan Lee
Black widow | Natasha Romanoff      | Marvel Comics | 1964 | Stan Lee
Black panther | T Challa              | Marvel Comics | 1966 | Stan Lee
Antman     | Scott Lang             | Marvel Comics | 1962 | Stan Lee
Cyclops    | Scott Summers         | Marvel Comics | 1963 | Stan Lee
(8 rows)

usuario5=>
```

Figura 5: *Query 5 result*