1. **select title from movies;**

|  |
| --- |
| **title** |
| **Toy Story** |
| **A Bug's Life** |
| **Toy Story 2** |
| **Monsters, Inc.** |
| **Finding Nemo** |
| **The Incredibles** |
| **Cars** |
| **Ratatouille** |
| **WALL-E** |
| **Up** |
| **Toy Story 3** |
| **Cars 2** |
| **Brave** |
| **Monsters University** |

**2. select director from movies;**

|  |
| --- |
| **director** |
| John Lasseter |
| John Lasseter |
| John Lasseter |
| Pete Docter |
| Andrew Stanton |
| Brad Bird |
| John Lasseter |
| Brad Bird |
| Andrew Stanton |
| Pete Docter |
| Lee Unkrich |
| John Lasseter |
| Brenda Chapman |
| Dan Scanlon |

**3. select title, director from movies;**

|  |  |
| --- | --- |
| **title** | **director** |
| Toy Story | John Lasseter |
| A Bug's Life | John Lasseter |
| Toy Story 2 | John Lasseter |
| Monsters, Inc. | Pete Docter |
| Finding Nemo | Andrew Stanton |
| The Incredibles | Brad Bird |
| Cars | John Lasseter |
| Ratatouille | Brad Bird |
| WALL-E | Andrew Stanton |
| Up | Pete Docter |
| Toy Story 3 | Lee Unkrich |
| Cars 2 | John Lasseter |
| Brave | Brenda Chapman |
| Monsters University | Dan Scanlon |

**3.select title, year from movies;**

|  |  |
| --- | --- |
| **title** | **year** |
| Toy Story | 1995 |
| A Bug's Life | 1998 |
| Toy Story 2 | 1999 |
| Monsters, Inc. | 2001 |
| Finding Nemo | 2003 |
| The Incredibles | 2004 |
| Cars | 2006 |
| Ratatouille | 2007 |
| WALL-E | 2008 |
| Up | 2009 |
| Toy Story 3 | 2010 |
| Cars 2 | 2011 |
| Brave | 2012 |
| Monsters University | 2013 |

**4.select \* from movies;**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **id** | **title** | **director** | **year** | **length\_minutes** |
| 1 | Toy Story | John Lasseter | 1995 | 81 |
| 2 | A Bug's Life | John Lasseter | 1998 | 95 |
| 3 | Toy Story 2 | John Lasseter | 1999 | 93 |
| 4 | Monsters, Inc. | Pete Docter | 2001 | 92 |
| 5 | Finding Nemo | Andrew Stanton | 2003 | 107 |
| 6 | The Incredibles | Brad Bird | 2004 | 116 |
| 7 | Cars | John Lasseter | 2006 | 117 |
| 8 | Ratatouille | Brad Bird | 2007 | 115 |
| 9 | WALL-E | Andrew Stanton | 2008 | 104 |
| 10 | Up | Pete Docter | 2009 | 101 |
| 11 | Toy Story 3 | Lee Unkrich | 2010 | 103 |
| 12 | Cars 2 | John Lasseter | 2011 | 120 |
| 13 | Brave | Brenda Chapman | 2012 | 102 |
| 14 | Monsters University | Dan Scanlon | 2013 | 110 |

**5.SELECT \* FROM movies where id =6;**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **id** | **title** | **Director** | **year** | **length\_minutes** |
| 6 | The Incredibles | Brad Bird | 2004 | 116 |

**6.SELECT \* FROM movies where year between 2000 and 2010;**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **id** | **title** | **director** | **year** | **length\_minutes** |
| 4 | Monsters, Inc. | Pete Docter | 2001 | 92 |
| 5 | Finding Nemo | Andrew Stanton | 2003 | 107 |
| 6 | The Incredibles | Brad Bird | 2004 | 116 |
| 7 | Cars | John Lasseter | 2006 | 117 |
| 8 | Ratatouille | Brad Bird | 2007 | 115 |
| 9 | WALL-E | Andrew Stanton | 2008 | 104 |
| 10 | Up | Pete Docter | 2009 | 101 |
| 11 | Toy Story 3 | Lee Unkrich | 2010 | 103 |

**7.SELECT \* FROM movies where year not between 2000 and 2010;**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **id** | **title** | **director** | **year** | **length\_minutes** |
| 1 | Toy Story | John Lasseter | 1995 | 81 |
| 2 | A Bug's Life | John Lasseter | 1998 | 95 |
| 3 | Toy Story 2 | John Lasseter | 1999 | 93 |
| 12 | Cars 2 | John Lasseter | 2011 | 120 |
| 13 | Brave | Brenda Chapman | 2012 | 102 |
| 14 | Monsters University | Dan Scanlon | 2013 | 110 |

**9.SELECT title, year FROM movies limit 5;**

|  |  |
| --- | --- |
| **title** | **year** |
| Toy Story | 1995 |
| A Bug's Life | 1998 |
| Toy Story 2 | 1999 |
| Monsters, Inc. | 2001 |
| Finding Nemo | 2003 |

**10.select \* from movies where title like 'Toy%'**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **id** | **title** | **director** | **year** | **length\_minutes** |
| 1 | Toy Story | John Lasseter | 1995 | 81 |
| 3 | Toy Story 2 | John Lasseter | 1999 | 93 |
| 11 | Toy Story 3 | Lee Unkrich | 2010 | 103 |

**11. select \* from movies where director='John Lasseter'**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **id** | **title** | **director** | **year** | **length\_minutes** |
| 1 | Toy Story | John Lasseter | 1995 | 81 |
| 2 | A Bug's Life | John Lasseter | 1998 | 95 |
| 3 | Toy Story 2 | John Lasseter | 1999 | 93 |
| 7 | Cars | John Lasseter | 2006 | 117 |
| 12 | Cars 2 | John Lasseter | 2011 | 120 |

**12.select title, director from movies where director! ='John Lasseter'**

|  |  |
| --- | --- |
| **title** | **director** |
| Monsters, Inc. | Pete Docter |
| Finding Nemo | Andrew Stanton |
| The Incredibles | Brad Bird |
| Ratatouille | Brad Bird |
| WALL-E | Andrew Stanton |
| Up | Pete Docter |
| Toy Story 3 | Lee Unkrich |
| Brave | Brenda Chapman |
| Monsters University | Dan Scanlon |
| WALL-G | Brenda Chapman |

**13. select \* from movies WHERE title like 'WALL-%'**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **id** | **title** | **director** | **year** | **length\_minutes** |
| 9 | WALL-E | Andrew Stanton | 2008 | 104 |
| 87 | WALL-G | Brenda Chapman | 2042 | 97 |

**14 .SELECT distinct director FROM movies order by director;**

|  |
| --- |
| **director** |
| Andrew Stanton |
| Brad Bird |
| Brenda Chapman |
| Dan Scanlon |
| John Lasseter |
| Lee Unkrich |
| Pete Docter |

**15.** **SELECT title FROM movies order by year desc limit 4;**

|  |
| --- |
| **title** |
| Monsters University |
| Brave |
| Cars 2 |
| Toy Story 3 |

**16. SELECT title FROM movies order by title limit 5;**

|  |
| --- |
| **title** |
| A Bug's Life |
| Brave |
| Cars |
| Cars 2 |
| Finding Nemo |

**17.SELECT title FROM movies order by title limit 5 offset 5;**

|  |
| --- |
| **title** |
| Monsters University |
| Monsters, Inc. |
| Ratatouille |
| The Incredibles |
| Toy Story |

**18. SELECT city,population FROM north\_american\_cities where country='Canada'**

|  |  |
| --- | --- |
| **city** | **population** |
| Toronto | 2795060 |
| Montreal | 1717767 |

**19. select city from north\_american\_cities where country='United States'**

**order by latitude desc;**

|  |
| --- |
| **city** |
| Chicago |
| New York |
| Philadelphia |
| Los Angeles |
| Phoenix |
| Houston |

**20. SELECT city, longitude FROM north\_american\_cities**

**WHERE longitude < -87.629798**

**ORDER BY longitude ASC;**

|  |  |
| --- | --- |
| **city** | **longitude** |
| Los Angeles | -118.243685 |
| Phoenix | -112.074037 |
| Guadalajara | -103.349609 |
| Mexico City | -99.133208 |
| Ecatepec de Morelos | -99.050674 |
| Houston | -95.369803 |

**21.** **select city,population from north\_american\_cities where country='Mexico' order by population desc limit 2;**

|  |  |
| --- | --- |
| **city** | **population** |
| Mexico City | 8555500 |
| Ecatepec de Morelos | 1742000 |

**22.** **select city,population from north\_american\_cities where country='United States' order by population desc limit 2 offset 2;**

|  |  |
| --- | --- |
| **city** | **population** |
| Chicago | 2718782 |
| Houston | 2195914 |

**23. SELECT title, domestic\_sales, international\_sales**

**FROM movies**

**JOIN boxoffice**

**ON movies.id = boxoffice.movie\_id;**

|  |  |  |
| --- | --- | --- |
| **title** | **domestic\_sales** | **international\_sales** |
| Finding Nemo | 380843261 | 555900000 |
| Monsters University | 268492764 | 475066843 |
| Ratatouille | 206445654 | 417277164 |
| Cars 2 | 191452396 | 368400000 |
| Toy Story 2 | 245852179 | 239163000 |
| The Incredibles | 261441092 | 370001000 |
| WALL-E | 223808164 | 297503696 |
| Toy Story 3 | 415004880 | 648167031 |
| Toy Story | 191796233 | 170162503 |
| Cars | 244082982 | 217900167 |
| Up | 293004164 | 438338580 |
| Monsters, Inc. | 289916256 | 272900000 |
| A Bug's Life | 162798565 | 200600000 |
| Brave | 237283207 | 301700000 |

**24.** **select t.title,b.international\_sales,b.domestic\_sales**

**from movies t join boxoffice b**

**on t.id=b.movie\_id**

**where b.international\_sales>b.domestic\_sales;**

|  |  |  |
| --- | --- | --- |
| **title** | **international\_sales** | **domestic\_sales** |
| Finding Nemo | 555900000 | 380843261 |
| Monsters University | 475066843 | 268492764 |
| Ratatouille | 417277164 | 206445654 |
| Cars 2 | 368400000 | 191452396 |
| The Incredibles | 370001000 | 261441092 |
| WALL-E | 297503696 | 223808164 |
| Toy Story 3 | 648167031 | 415004880 |
| Up | 438338580 | 293004164 |
| A Bug's Life | 200600000 | 162798565 |
| Brave | 301700000 | 237283207 |

**25.select t.title**

**from movies t join boxoffice b**

**on t.id=b.movie\_id**

**order by b.rating desc;**

|  |
| --- |
| **title** |
| WALL-E |
| Toy Story 3 |
| Toy Story |
| Up |
| Finding Nemo |
| Monsters, Inc. |
| Ratatouille |
| The Incredibles |
| Toy Story 2 |
| Monsters University |
| Cars |
| A Bug's Life |
| Brave |
| Cars 2 |

**26. SELECT DISTINCT building FROM employees;**

|  |
| --- |
| **building** |
| 1e |
| 2w |

**27. SELECT \* FROM buildings;**

|  |  |
| --- | --- |
| **building\_name** | **capacity** |
| 1e | 24 |
| 1w | 32 |
| 2e | 16 |
| 2w | 20 |

**28. SELECT DISTINCT building\_name, role**

**FROM buildings**

**LEFT JOIN employees**

**ON building\_name = building;**

|  |  |
| --- | --- |
| **building\_name** | **role** |
| 1e | Engineer |
| 1e | Manager |
| 1w |  |
| 2e |  |
| 2w | Artist |
| 2w | Manager |

**29. select name,role from employees where building is null;**

|  |  |
| --- | --- |
| **name** | **role** |
| Yancy I. | Engineer |
| Oliver P. | Artist |

**30.** **SELECT DISTINCT building\_name FROM buildings**

**LEFT JOIN employees ON building\_name = building**

**WHERE role IS NULL;**

|  |
| --- |
| **building\_name** |
| 1w |
| 2e |

**31. SELECT title, (domestic\_sales + international\_sales) / 1000000 AS gross\_sales\_millions**

**FROM movies**

**JOIN boxoffice**

**ON movies.id = boxoffice.movie\_id;**

|  |  |
| --- | --- |
| **title** | **gross\_sales\_millions** |
| Finding Nemo | 936.743261 |
| Monsters University | 743.559607 |
| Ratatouille | 623.722818 |
| Cars 2 | 559.852396 |
| Toy Story 2 | 485.015179 |
| The Incredibles | 631.442092 |
| WALL-E | 521.31186 |
| Toy Story 3 | 1063.171911 |
| Toy Story | 361.958736 |
| Cars | 461.983149 |
| Up | 731.342744 |
| Monsters, Inc. | 562.816256 |
| A Bug's Life | 363.398565 |
| Brave | 538.983207 |

**32. select title,rating\*10 as rating\_percent**

**from movies join boxoffice on id=movie\_id**

|  |  |
| --- | --- |
| **title** | **rating\_percent** |
| Finding Nemo | 82 |
| Monsters University | 74 |
| Ratatouille | 80 |
| Cars 2 | 64 |
| Toy Story 2 | 79 |
| The Incredibles | 80 |
| WALL-E | 85 |
| Toy Story 3 | 84 |
| Toy Story | 83 |
| Cars | 72 |
| Up | 83 |
| Monsters, Inc. | 81 |
| A Bug's Life | 72 |
| Brave | 72 |

**33. select title from movies where year%2==0;**

|  |
| --- |
| **title** |
| A Bug's Life |
| The Incredibles |
| Cars |
| WALL-E |
| Toy Story 3 |
| Brave |

**34.** **SELECT max(years\_employed) from employees;**

|  |
| --- |
| **max(years\_employed)** |
| 9 |

**35. select role,avg(years\_employed) from employees group by role;**

|  |  |
| --- | --- |
| **role** | **avg(years\_employed)** |
| Artist | 6 |
| Engineer | 3.4 |
| Manager | 6 |

**36. select building,sum(years\_employed) as total\_numberofemployes from employees group by building**

|  |  |
| --- | --- |
| **building** | **total\_numberofemployes** |
| 1e | 29 |
| 2w | 36 |

**37.SELECT role, COUNT(\*) as Number\_of\_artists**

**FROM employees**

**WHERE role = "Artist";**

|  |  |
| --- | --- |
| **role** | **Number\_of\_artists** |
| Artist | 5 |

**38. select role,count(\*) from employees group by role;**

|  |  |
| --- | --- |
| **role** | **count(\*)** |
| Artist | 5 |
| Engineer | 5 |
| Manager | 3 |

**39.** **select role,sum(years\_employed) from employees**

**group by role limit 1 offset 1;**

|  |  |
| --- | --- |
| **role** | **sum(years\_employed)** |
| Engineer | 17 |

**40. SELECT director,count(\*) FROM movies group by director;**

|  |  |
| --- | --- |
| **director** | **count(\*)** |
| Andrew Stanton | 2 |
| Brad Bird | 2 |
| Brenda Chapman | 1 |
| Dan Scanlon | 1 |
| John Lasseter | 5 |
| Lee Unkrich | 1 |
| Pete Docter | 2 |

**41. SELECT director,sum(domestic\_sales)+sum(international\_sales) as total\_sales**

**FROM movies join boxoffice on id=movie\_id group by director;**

|  |  |
| --- | --- |
| **director** | **total\_sales** |
| Andrew Stanton | 1458055121 |
| Brad Bird | 1255164910 |
| Brenda Chapman | 538983207 |
| Dan Scanlon | 743559607 |
| John Lasseter | 2232208025 |
| Lee Unkrich | 1063171911 |
| Pete Docter | 1294159000 |

**42. insert into movies values(15,'Toy Story 4','John Lasseter',2014,105)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **id** | **title** | **director** | **year** | **length\_minutes** |
| 1 | Toy Story | John Lasseter | 1995 | 81 |
| 2 | A Bug's Life | John Lasseter | 1998 | 95 |
| 3 | Toy Story 2 | John Lasseter | 1999 | 93 |
| 15 | Toy Story 4 | John Lasseter | 2014 | 105 |

**43. insert into boxoffice values(15,8.7,340000000,270000000)**

|  |  |  |  |
| --- | --- | --- | --- |
| **movie\_id** | **rating** | **domestic\_sales** | **international\_sales** |
| 3 | 7.9 | 245852179 | 239163000 |
| 1 | 8.3 | 191796233 | 170162503 |
| 2 | 7.2 | 162798565 | 200600000 |
| 15 | 8.7 | 340000000 | 270000000 |

**44. update movies set director='John Lasseter' where title="A Bug's Life"**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **id** | **title** | **director** | **year** | **length\_minutes** |
| 1 | Toy Story | John Lasseter | 1995 | 81 |
| **2** | **A Bug's Life** | **John Lasseter** | **1998** | **95** |
| 3 | Toy Story 2 | John Lasseter | 1899 | 93 |
| 4 | Monsters, Inc. | Pete Docter | 2001 | 92 |
| 5 | Finding Nemo | Andrew Stanton | 2003 | 107 |
| 6 | The Incredibles | Brad Bird | 2004 | 116 |
| 7 | Cars | John Lasseter | 2006 | 117 |

**45.** **update movies set year=1999 where title="Toy Story 2"**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **id** | **title** | **director** | **year** | **length\_minutes** |
| 1 | Toy Story | John Lasseter | 1995 | 81 |
| 2 | A Bug's Life | John Lasseter | 1998 | 95 |
| **3** | **Toy Story 2** | **John Lasseter** | **1999** | **93** |

**46. update movies set title="Toy Story 3",director='Lee Unkrich' where title="Toy Story 8"**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **id** | **title** | **director** | **year** | **length\_minutes** |
| 1 | Toy Story | John Lasseter | 1995 | 81 |
| 2 | A Bug's Life | John Lasseter | 1998 | 95 |
| 3 | Toy Story 2 | John Lasseter | 1999 | 93 |
| 4 | Monsters, Inc. | Pete Docter | 2001 | 92 |
| 5 | Finding Nemo | Andrew Stanton | 2003 | 107 |
| 6 | The Incredibles | Brad Bird | 2004 | 116 |
| 7 | Cars | John Lasseter | 2006 | 117 |
| 8 | Ratatouille | Brad Bird | 2007 | 115 |
| 9 | WALL-E | Andrew Stanton | 2008 | 104 |
| 10 | Up | Pete Docter | 2009 | 101 |
| **11** | **Toy Story 3** | **Lee Unkrich** | **2010** | **103** |
| 12 | Cars 2 | John Lasseter | 2011 | 120 |
| 13 | Brave | Brenda Chapman | 2012 | 102 |
| 14 | Monsters University | Dan Scanlon | 2013 | 110 |

**47.** **delete from movies where year<2005;**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **id** | **title** | **director** | **year** | **length\_minutes** |
| 7 | Cars | John Lasseter | 2006 | 117 |
| 8 | Ratatouille | Brad Bird | 2007 | 115 |
| 9 | WALL-E | Andrew Stanton | 2008 | 104 |
| 10 | Up | Pete Docter | 2009 | 101 |
| 11 | Toy Story 3 | Lee Unkrich | 2010 | 103 |
| 12 | Cars 2 | John Lasseter | 2011 | 120 |
| 13 | Brave | Brenda Chapman | 2012 | 102 |
| 14 | Monsters University | Dan Scanlon | 2013 | 110 |

**48. delete from movies where director="Andrew Stanton";**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **id** | **title** | **director** | **year** | **length\_minutes** |
| 7 | Cars | John Lasseter | 2006 | 117 |
| 8 | Ratatouille | Brad Bird | 2007 | 115 |
| 10 | Up | Pete Docter | 2009 | 101 |
| 11 | Toy Story 3 | Lee Unkrich | 2010 | 103 |
| 12 | Cars 2 | John Lasseter | 2011 | 120 |
| 13 | Brave | Brenda Chapman | 2012 | 102 |
| 14 | Monsters University | Dan Scanlon | 2013 | 110 |

**49. create table Database(Name varchar(20),Version float,Download\_count int);**

|  |  |  |
| --- | --- | --- |
| **Name** | **Version** | **Download\_count** |
| SQLite | 3.9 | 92000000 |
| MySQL | 5.5 | 512000000 |
| Postgres | 9.4 | 384000000 |

**50. ALTER TABLE Movies ADD COLUMN Aspect\_ratio FLOAT DEFAULT 2.39;**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **id** | **title** | **director** | **year** | **length\_minutes** | **Aspect\_ratio** |
| 1 | Toy Story | John Lasseter | 1995 | 81 | 2.39 |
| 2 | A Bug's Life | John Lasseter | 1998 | 95 | 2.39 |
| 3 | Toy Story 2 | John Lasseter | 1999 | 93 | 2.39 |
| 4 | Monsters, Inc. | Pete Docter | 2001 | 92 | 2.39 |
| 5 | Finding Nemo | Andrew Stanton | 2003 | 107 | 2.39 |
| 6 | The Incredibles | Brad Bird | 2004 | 116 | 2.39 |
| 7 | Cars | John Lasseter | 2006 | 117 | 2.39 |
| 8 | Ratatouille | Brad Bird | 2007 | 115 | 2.39 |
| 9 | WALL-E | Andrew Stanton | 2008 | 104 | 2.39 |
| 10 | Up | Pete Docter | 2009 | 101 | 2.39 |
| 11 | Toy Story 3 | Lee Unkrich | 2010 | 103 | 2.39 |
| 12 | Cars 2 | John Lasseter | 2011 | 120 | 2.39 |
| 13 | Brave | Brenda Chapman | 2012 | 102 | 2.39 |
| 14 | Monsters University | Dan Scanlon | 2013 | 110 | 2.39 |

**51. ALTER TABLE Movies ADD COLUMN Language varchar(20) DEFAULT "English";**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **id** | **title** | **director** | **year** | **length\_minutes** | **Aspect\_ratio** | **Language** |
| 1 | Toy Story | John Lasseter | 1995 | 81 | 2.39 | English |
| 2 | A Bug's Life | John Lasseter | 1998 | 95 | 2.39 | English |
| 3 | Toy Story 2 | John Lasseter | 1999 | 93 | 2.39 | English |
| 4 | Monsters, Inc. | Pete Docter | 2001 | 92 | 2.39 | English |
| 5 | Finding Nemo | Andrew Stanton | 2003 | 107 | 2.39 | English |
| 6 | The Incredibles | Brad Bird | 2004 | 116 | 2.39 | English |
| 7 | Cars | John Lasseter | 2006 | 117 | 2.39 | English |
| 8 | Ratatouille | Brad Bird | 2007 | 115 | 2.39 | English |
| 9 | WALL-E | Andrew Stanton | 2008 | 104 | 2.39 | English |
| 10 | Up | Pete Docter | 2009 | 101 | 2.39 | English |
| 11 | Toy Story 3 | Lee Unkrich | 2010 | 103 | 2.39 | English |
| 12 | Cars 2 | John Lasseter | 2011 | 120 | 2.39 | English |
| 13 | Brave | Brenda Chapman | 2012 | 102 | 2.39 | English |
| 14 | Monsters University | Dan Scanlon | 2013 | 110 | 2.39 | English |

**52. drop table movies**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **id** | **title** | **director** | **year** | **length\_minutes** |

**53. drop table boxoffice;**

|  |  |  |  |
| --- | --- | --- | --- |
| **movie\_id** | **rating** | **domestic\_sales** | **international\_sales** |

s