For each question, write a SQL query that will provide the given answer. Use the database db\_fdms\_ba.

1. List airports with year opened after 1945 and that have the largest size for each state greater than 326. Order the answer by state.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| AIRNAME | CITY | STATE | SIZE | YEAROPENED | MaxSize |
| Pittsfield | Pittsfield | Massachusetts | 321 | 1972 | 327 |
| Falmouth | Plymouth | Massachusetts | 327 | 1956 | 327 |
| Houston Hobby | Houston | Texas | 423 | 1950 | 423 |
| El Paso Intl | El Paso | Texas | 325 | 1948 | 423 |

2. List airports in the same state such that the size differs more than 400 units. Order by FirstSize.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| FirstAirport | FirstSize | SecondAirport | SecondSize | STATE |
| Houston Intercont | 638 | Austin Bergstrom | 130 | Texas |
| Dallas Intl | 736 | Austin Bergstrom | 130 | Texas |
| Dallas Intl | 736 | El Paso Intl | 325 | Texas |

3. List mechanic number and names for mechanics who have skills 104 as well as 304 (both skills, not just one). Order by mechanic name.

Select t1.mechnum,t1.mechname from Mechanics t1 where exists (select 1 from Qualifications t2 where t2.mechnum = t1.mechnum and t2.skillnum = 104)

And exists (select 1 from Qualifications t3 where t3.mechnum = t1.mechnum and t3.skillnum = 304)

|  |  |
| --- | --- |
| MECHNUM | MECHNAME |
| 45687 | Clay |
| 24578 | Hardiman |
| 12305 | Marshall |
| 33125 | Rogers |

4. List mechanics who work in Los Angeles Intl airport and do not have any qualification.

Select \* from Mechanic t1 where t1.airname = 'Los Angeles Intl'

And not exists (select 1 from Qualification t2 where t2.mechnum = t1.mechnum)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| MECHNUM | MECHNAME | TELEPHONE | SALARY | AIRNAME |
| 24478 | Brents | 4578797 | 39000 | Los Angeles Intl |
| 45789 | Newell | 8578789 | 45000 | Los Angeles Intl |