Module 4 Problem Solutions

The problems use the intercollegiate athletics database. The course website also contains Oracle and MySQL CREATE TABLE statements as well as INSERT statements.

1. List the customer number, the name, the phone number, and the city of customers.
2. List the customer number, the name, the phone number, and the city of customers who reside in Colorado (State is CO).
3. List all columns of the *EventRequest* table for events costing more than $4000. Order the result by the event date (*DateHeld*).
4. List the event number, the event date (DateHeld), and the estimated audience number with approved status and audience greater than 9000 or with pending status and audience greater than 7000.
5. List the event number, event date (DateHeld), customer number and customer name of events placed in January 2018 by customers from Boulder.
6. List the average number of resources used (NumberFld) by plan number. Include only location number L100.
7. List the average number of resources used (NumberFld) by plan number. Only include location number L100. Eliminate plans with less than two event lines containing location number L100.

Solutions

1.
```
SELECT CustNo, CustName, Phone, City
  FROM Customer;
```

2.
```
SELECT CustNo, CustName, Phone, City
  FROM Customer
```

```
  WHERE State = 'CO';
```

3.

```
SELECT *
  FROM EventRequest
  WHERE EstCost > 4000
  ORDER BY DateHeld;
```

4. The parentheses are necessary when mixing the logical AND and OR connectors.

```
SELECT EventNo, DateHeld, Status, EstAudience
  FROM EventRequest
  WHERE (Status = 'Approved' AND EstAudience > 9000)
         OR (Status = 'Pending' AND EstAudience > 7000);
```

5.

Oracle solutions:

```
SELECT EventNo, DateHeld, Customer.CustNo, CustName
  FROM EventRequest, Customer
  WHERE City = 'Boulder'
       AND DateHeld BETWEEN '1-Dec-2018' AND '31-Dec-2018'
       AND EventRequest.CustNo = Customer.CustNo;

SELECT  EventNo, DateHeld, Customer.CustNo, CustName
  FROM  EventRequest INNER JOIN Customer
       ON  EventRequest.CustNo = Customer.CustNo
  WHERE  City = 'Boulder'
       AND DateHeld BETWEEN '1-Dec-2018' AND '31-Dec-2018' ;
```

MySQL and PostgreSQL solutions

```
SELECT EventNo, DateHeld, Customer.CustNo, CustName
  FROM EventRequest, Customer
  WHERE City = 'Boulder'
       AND DateHeld BETWEEN '2018-12-01'AND '2018-12-31'
       AND EventRequest.CustNo = Customer.CustNo;

SELECT  EventNo, DateHeld, Customer.CustNo, CustName
  FROM  EventRequest INNER JOIN Customer
       ON  EventRequest.CustNo = Customer.CustNo
  WHERE  City = 'Boulder'
        AND DateHeld BETWEEN '2018-12-01'AND '2018-12-31';
```

6.

```
SELECT PlanNo, AVG(NumberFld) AS AvgNumResources
  FROM EventPlanLine
  WHERE LocNo = 'L100'
  GROUP BY PlanNo;
```

7.

```
SELECT PlanNo, AVG(NumberFld) AS AvgNumResources,
          COUNT(*) AS NumEventLines
  FROM EventPlanLine
  WHERE LocNo = 'L100'
  GROUP BY PlanNo
  HAVING COUNT(*) > 1;
```