1. **Update the name of the Branches table**that you created in the previous lab to say "Department".
   1. Use an ALTER statement to successfully RENAME the "Branches" table to "Department".

A computer screen with white text

Description automatically generated

**Insert fields to the Department table**so that you’ll be able to perform joins on them.

1. INSERT INTO Department VALUES
   * (1, 'Accounting'),
   * (2, 'Human Resources'),
   * (3, 'Information Systems'),
   * (4, 'Marketing');

A computer screen shot of a black screen

Description automatically generated

3. Now, **perform joins between the Department and Employee tables and show results** for how many employees work in each one of the four departments. This will only provide information on the records that are already there.

1. Department 1 = Accounting  
   1. Command: SELECT First\_Name, Last\_Name, Department.Department\_Name FROM Employee INNER JOIN Department ON Employee.Department\_ID = Department.Department\_ID WHERE Employee.Department\_ID = 1;
2. Using SELECT statements similar to the one above, **perform joins to produce results** for the following tables:  
   1. Department 2 = Human Resources
   2. Department 3 = Information Systems
   3. A computer screen shot of a black screen

      Description automatically generatedDepartment 4 = Marketing

A computer screen with white text

Description automatically generated

**4. Populate the Employee table with**information for ten **new employees.**

1. A screen shot of a computer

   Description automatically generatedGive them unique names and include attributes for **all** necessary fields. (Note: Please reference attributes from the lab in Module Two. Department ID values must be between 1 and 4.

A computer screen with white text

Description automatically generated**5. Perform a join across the Employee and Department Tables** for each of the four departments. New and existing records should be displayed in the results.

A computer screen shot of a black screen

Description automatically generated

**6. Identify the resultant outputs** of the commands that you’ve written:  
 19 records are returned for the 19 employees

**7. Create a CSV file**that contains only the records of employees in Human Resources and Information Systems. If you run this query multiple times, be sure to use a different file name each time. MySQL will not overwrite an existing file.

1. Enter the command listed below.  
   1. Command: select First\_Name, Last\_Name, Department.Department\_Name from Employee inner join Department on Employee.Department\_ID = Department.Department\_ID where Employee.Department\_ID = 3 OR Employee.Department\_ID = 2 into outfile'/home/codio/workspace/HRandIS-Employees.csv' FIELDS TERMINATED BY',' LINES TERMINATED BY '\r\n';
2. A computer screen shot of a black screen

   Description automatically generatedPrint the file output to the screen.
3. **Reflection**: Provide detailed insight on the prompts below by explaining your process along with how and why it ultimately worked.  
   * 1. **Explain**how **the joins** you used in this assignment worked.

I used join that is a SELECT statement that combines data from two tables into one single result. The join clause used was inner join because it allows us to select only matching left and right table rows rather than using full join that selects all left and right table rows regardless of matching.

* + 1. **Describe**whythe **commands**you used were able to retrieve the Department table when you selected the Department name.

The commands I used allowed me to retrieve the Department table because the SELECT statement used allowed me to be specific in the information chosen. Using SELECT, FROM, INNER JOIN, and WHERE told the exact information needed to join the two tables into one result.

* 1. File creation and extraction  
     1. **Identify** how many **records** are in the file when you write the records of your query to a CSV file.

There are a total of 19 records, however there are 10 records when writing to a CSV file.

* + 1. **Explain**, in detail, the process of **extracting data** to a flat file.

There are 10 records because when extracting the data to a flat file we sent employees with Department\_ID of 3 and 2. This gave us the four employees that work in department\_ID 2 (Human resources) and the six employees that work in department\_ID 3 (Information systems). Giving us a total of 10 records that extracted to a flat file.