

Steps to follow

- Create the database schema
- Create the tables
 - Course (**Id**, Subject, CRN, TermCode, NumberOfStudents)
 - CourseStatistics (**Id**, Name, Count, **Courseid**)
- Understand the file names for csv
 - class-roster-#####-YYYYMM.csv
- Specify the directory where we put the csv files
 - Put 2 csv files for testing
- Develop a console App
 - Specify directory
 - Connect to database
 - Read all csv files in the given directory
 - Do the required analysis for Course table
 - Determine the file names
 - Count number of students in each file
 - Algorithm
 - Read all filepaths and store it in a list
 - For each filepath:
 - Use regex and find CRN and Term-code
 - Read the content of the file at the given filepath and store it in a list
 - Determine the size of the list
 - id autoincrement, and subject is null
 - CRN, termcode are determined
 - Create an insert query to add new rows to Course table
 - One CSV file can generate only one row
 - Read all filepaths and store it in a list
 - For each filepath:
 - Use regex and find CRN and TermCode
 - Read the content of the file at the given filepath and store it in a list
 - Determine the size of the list
 - id autoincrement, and subject is null
 - CRN, termcode are determined
 - Call the method which returns the content of a file as a list
 - Find number of students
 - Using SQL command execute an insert query: insert one row to the course table
 - Do the required analysis for CourseStatistics table
 - How many students in the cohort are Oklahoma residents?
 - How many are non-residents? How many are international?

- A list of all the majors of the students in the cohort and the count for each major. Hint: countif statement
- The number of students that have multiple majors (does not contain MINOR)
- The number of students that have Management Info Systems as a minor.
- Create insert query statements to add news to CourseStatistics table
 - How many students in the cohort are Oklahoma residents?
 - One Course can generate only one row in Course Statistics table
 - Id is autoincrement
 - The courseid is read from the Course table
 - Name contains the question
 - Count stores the result of the statistics
 - How many are non-residents? How many are international?
 - One Course can generate only one row in Course Statistics table
 - A list of all the majors of the students in the cohort and the count for each major.
 - One Course can generate many rows in Course Statistics table
 - The number of rows generated depends on the diversity of the students taking the course.
 - Algorithm
 - Declare an empty map
 - For each filepath
 - Find the content of the data in a list form
 - Split each line and find the 8th column, that is the major
 - If a major exists in the map add its count by 1
 - Else add it as a new element in the map with a count=1
 - Finally the Map can be used to create the queries
 - The number of students that have multiple majors (does not contain MINOR)
 - One Course can generate only one row in Course Statistics table
 - The number of students that have Management Info Systems as a minor.
 - One Course can generate only one row in Course Statistics table