

## **Overview:**

This Assignment is about accessing SQL through Java. This assignment consists of two programs

This program is to extract the summary information from the database. You will store the summary information in a file that follows an XML format.

A summary of the formatting requirements is in the CSCI 3901 course assignment #5 information in the course's bright space.

The Java program first reads the start date,end date and file name. Depending on the start date and end date program should write the list of products, customers and staff into the provided output file.

## **Program flow:-**

- MainMethod reads a start date, end date from console and file name from console to store the expected output.
- JAXB method is called and converts the data from Java Object to XML with the help of JAXB.
- CustomerListDao method pulls the customer list details from MySQL database and saves the data into customerlist object.
- ProductListDao method pulls the customer list details from MySQL database and saves the data into productlist object.
- StaffListDao method pulls the customer list details from MySQL database and saves the data into stafflist object.

## **Java files:**

- Address.java, Customer\_List.java, Customer.java, Employee.java, Product\_List.java, Product.java, ProductSet.java, Staff\_List.java, Year.java, YearEndSummary.java – class files are Plain old Java Object and these are created based on Data Type Definition
- CustomerListDao.java, ProductListDao.java, StaffListDao.java-These files are Data Access objects to connect to database and to pull the details from database.
- JAXB.java, MainMethod.java- These files are used to convert the Java Objects into XML and to store them into output file.

## **Modules :**

- Read the start date,end date and file name from console
- Connect to SQL Database and with the help of SQL JDBC driver.
- Used JAXB library to marshal java objects to xml.

- Used @xmlRootElement in the Pojo classes to describe main DTD method starting tag and ending tag
- Used @xmlElement to describe the elements in a tag.

**Steps followed for program efficiency:**

- JAXB library is used to bind XML Schemas and java representations. It marshals the java objects to XML.
- Required annotations are used for binding objects in Plain Old Java Object.
- JDBC connection is used to access SQL database through Java.