**Choice of Application**

State unemployment insurance agencies require that claimants keep records of weekly job contacts. In order to justify a weekly unemployment claim, the claimant must prepare a report for submittal to the state unemployment insurance agency. This is a time consuming and error prone manual task. Generally, when a job application is submitted via an internet website, the prospective employer immediately sends a confirmation email to the applicant. The job application information is readily available in the confirmation emails sent by the prospective employers. The goal of this automation task will be to populate a relational database table with job-related contact information retrieved from Outlook email messages. The extracted information will be stored in a Microsoft SQL Server database for the purpose of reporting the job contacts.

**Information to be recorded**

* Date of contact
* Email address of the sender
* Subject of email
* Body of email

**Microsoft SQL Server Table Definition**

USE [Nelnet]

GO

SET ANSI\_NULLS ON

GO

SET QUOTED\_IDENTIFIER ON

GO

CREATE TABLE [dbo].[JobContacts](

[DateOfContact] [date] NOT NULL,

[EmailAddressOfSender] [nvarchar](max) NULL,

[SubjectOfEmail] [nvarchar](max) NULL,

[BodyOfEmail] [nvarchar](max) NULL

) ON [PRIMARY] TEXTIMAGE\_ON [PRIMARY]

GO

**Algorithm for Collecting Contact Information**

* Prompt user for email address, start and end dates.
* Connect to database.
* Instantiate Outlook email client and prepare to read Inbox folder.
* Setup filters for the messages to be selected by date range.
* Cycle through email Inbox searching for messages that fall within the start and end dates.
* When a message meets the criteria, display the date, sender, and subject of the message on the terminal.
* Prompt the user to (l)og, (s)kip, or (q)uit.
* if log is selected, insert a row into the JobContacts table where the row does not already exist.
* if skip is selected, move on to the next email message that meets the search criteria.
* If quit is selected, display the rows that were inserted and quit the program.
* Commit changes to the datase.
* Print all rows entered into the database for the given date range.