

Objective:

- String processing
- Concept of string comparison
- Use of conditional and control statements

Use conditional and Control statements to validate email domain name and append customer information in String format.

This application validates email domain address for every registered customer and displays information in formatted output.

You may assign an organization name. ***For example***, Humber College is an organization and all employees have email address that uses domain as “**humber.ca**”. This means that all the employees of Humber will always have email domain as “**humber.ca**”.

This application displays (when option 2 is selected to display complete information) your name and student number on the top right corner followed by Organization name (***you may choose your own Organization name***). You may then define your email domain name (**based on the Organization name that you chose**) for your organization.

In my example for Lab2, I am using “**innovatives.ca**” as domain name. Email address will have “**@innovatives.ca**” as domain email address. Here my organization that I chose is “**Innovative Solutions Inc**”. You may choose any name as your organization’s domain name and you may choose any domain as domain email address.

On the next line, when option 2, to display all customers’ information, is chosen, it displays organization’s name approximately at the middle of the line.

This application then displays menu choices to the user:

1. To add first name, last name and email address
2. To display all the customers’ information in the formatted output
3. To end the application

When user enters choice 1, application prompts user to enter first name. User enters first name. Then application prompts user to enter last name. User enters last name. Then application prompts user to enter customer’s registered email address. User enters the email address.

The application validates the email domain name. If the email domain name is validated, then the first name, last name and email address of this customer is appended to the formatted string. If the email domain name does not match with the organizational email domain name (e.g. “humber.ca” or “innovatives.ca” etc.), the application again prompts to enter correct email address. User again enters email address. Application tries to validate this email address three times. During these three

times if at any time, the email domain name is validated, the application will append the first name, last name and the email address to the string (registers with the system).

If during these three trials, correct email address is not validated, then the application does not append the first name, last name and the email address to the string. The application goes back to display the menu.

Following diagram shows the menu options displayed by application:

Muhammad Khan

Student ID: N0123456

1. Enter first name, last name and email contact
2. Display complete customer information, registered so far
3. End Applications

Enter your choice: 1

Enter first name: Austin

Enter last name: Miller

Enter customer email contact address: am@innovatives.ca

1. Enter first name, last name and email contact
2. Display complete customer information, registered so far
3. End Applications

Enter your choice: 1

Enter first name: Kenneth

Enter last name: Lambert

Enter customer email contact address: km@innovatives.ca

1. Enter first name, last name and email contact
2. Display complete customer information, registered so far
3. End Applications

Enter your choice:

In this case the organization's name is "Innovative Solutions Inc." and email domain name is "innovatives.ca". Comparison is made to validate that email has email domain name "innovatives.ca" (***you may choose your own company's email domain name***)

Following diagram shows that user enters incorrect email domain name (and user enters incorrect email domain information for three attempts, after which the application goes back to the main menu options):

```
Enter your choice: 1
Enter first name:    Alfredo
Enter last name:     Alvarez
Enter customer email contact address:    aa@innovation.ca
Customer email contact is not valid contact - enter correct contact information
Enter customer's registered email address
Enter customer email contact address:    aal@innovations.ca
Enter customer email contact address:    aal@innovatives.com
Enter customer email contact address:    aal@innovatives.org
1.  Enter first name, last name and email contact
2.  Display complete customer information, registered so far
3.  End Applications

Enter your choice: 2

                                Muhammad Khan
                                Student ID: N0123456

                                Innovative Solutions Inc.

                                First Name          Last Name          Email Contact Information
                                Austin             Miller             am@innovatives.ca
                                Kenneth             Lambert           km@innovatives.ca

1.  Enter first name, last name and email contact
2.  Display complete customer information, registered so far
```

Here choice 2, displays the formatted string. Please note that the name Alfredo Alvarez is not added to the formatted string as the email domain name did not match three times and then the application displayed the standard menu options. Only first two names are displayed.

When user enters choice 2, formatted output string is displayed. Output is only displayed if there are any customers that are added to the string, otherwise the application prints message, "There are no customers registered to the organization".

Following display shows when user enters choice 2 (to display formatted output).

```
Enter your choice: 1
Enter first name:    Brian
Enter last name:     Ripley
Enter customer email contact address: br@innovation.org
Customer email contact is not valid contact - enter correct contact information
Enter customer's registered email address
Enter customer email contact address: br@innovatives.ca
1.  Enter first name, last name and email contact
2.  Display complete customer information, registered so far
3.  End Applications
```

```
Enter your choice: 2
```

Muhammad Khan
Student ID: N0123456

Innovative Solutions Inc.

First Name	Last Name	Email Contact Information
Austin	Miller	am@innovatives.ca
Kenneth	Lambert	km@innovatives.ca
Brian	Ripley	br@innovatives.ca

1. Enter first name, last name and email contact
2. Display complete customer information, registered so far
3. End Applications

When user enters choice 3, application prints message showing that the application is ending and application ends.

When user enters choice 3, the application ends after displaying message. Following diagram shows this scenario:

```
Enter your choice: 2
```

Muhammad Khan
Student ID: N0123456

Innovative Solutions Inc.

First Name	Last Name	Email Contact Information
Austin	Miller	am@innovatives.ca
Kenneth	Lambert	km@innovatives.ca
Brian	Ripley	br@innovatives.ca

1. Enter first name, last name and email contact
2. Display complete customer information, registered so far
3. End Applications

```
Enter your choice: 3
```

```
Thank you for using Innovates Soft App
Good bye!
```

```
Process finished with exit code 0
```

```
|
```

Write well documented source code.

Zipped project folder is uploaded as part of Lab2 submission on Blackboard.

Marks distribution:

Well documented code:

2 Marks

Options for Reading first name and last name and email contact address and with choice 3, ending the application (conditions and loop):

2 Marks

Validating three times and processing if matched or unmatched email domain names:

4 Marks

Formatted output:

2 Marks

Total:**10 Marks**