

CIS247 Week 1 Lab, Design

Program Description: Basic User Interface

This program creates the basic user interface code that can be used in the following week's iLab assignments. The assignment will help you get started using the programming environment and some practice with coding. You will also be able to re-use much, if not all, of the code in later assignments.

In this program, you will create the following methods:

1. **DisplayApplicationInformation**, which will provide the program user some basic information about the program.
2. **DisplayDivider**, which will provide a meaningful output separator between different sections of the program output.
3. **GetInput**, which is a generalized function that will prompt the user for a specific type of information, then return the string representation of the user input.
4. **TerminateApplication**, which provides a program termination message and then terminates the application.

Using these methods, you will construct a program that prompts the user for the following:

1. Your name, which will be a string data type
2. Your age, which will be an integer data type
3. The gas mileage for your car, which will be a double data type
4. Display the collected information

Also, note that the program should contain a well document program header.

Pseudocode

```
//Program Header
//Program Name: Basic User Interface
//Programmer: Your Name
//CIS247, Week 1 Lab
//Program Description: PROVIDE A DESCRIPTITON OF THE PROGRAM
```

Start main

```
//declare variables
input as string
name as string
age as integer
mileage as double

call DisplayApplicationInformation
call DisplayDivider("Start Program")

call DisplayDivider("Get Name")
set name = GetInput("Your Name")
display "Your name is: " + name

call DisplayDivider("Get Age")
set input = GetInput("Your Age")
set age = convert input to integer
display "Your age is: " + age

call DisplayDivider("Get Mileage")
set input = GetInput("Gas Mileage")
```

```
set mileage = convert input to double
//display mileage to 2 decimal places
display "Your car MPG is: " + mileage
```

```
call TerminateApplication
```

end main program

procedure DisplayApplicationInformation

```
display "Welcome the Basic User Interface Program"
display "CIS247, Week 1 Lab"
display "Name: YOUR NAME"
display "This program accepts user input as a string, then makes the appropriate data conversion"
```

end procedure

procedure DisplayDivider(string outputTitle)

```
display "***** " + outputTitle + "*****"
```

end procedure

function GetInput(string inputType) as string

```
strInput as string
```

```
display "Enter the " + inputType
get strInput
```

```
return strInput
```

end function

procedure TerminateApplication

```
display "Thank you for using the Basic User Interface program"
exit application
```

end procedure