**CMPR114**

**Duc H Nguyen**

Objectives:

* Using the IF Block Structure

There are 3 projects, each worth 33.3%

Homework #2 is based on Chapter 3.

Complete the 3 projects below. Be sure to use the if block structure for all three projects.

**Project #1**

Text

Description automatically generated

**#1 print screen the output with code below here.**

**Code**

#input

user\_Month = int(input(‘\nEnter a month as a number between 1 and 12: ‘))

#process

message = ""

if user\_Month < 1 or user\_Month > 12:

message = "\nError. Month must be between 1 and 12. Try again."

else:

message = "\nMonth " + format(user\_Month) + " is in the"

if user\_Month >= 1 and user\_Month <= 3:

message += " first quarter of the year"

elif user\_Month >= 4 and user\_Month <= 6:

message += " second quarter of the year"

|  |
| --- |
| elif user\_Month >= 7 and user\_Month <= 9:  message += " third quarter of the year" |
|  |
|  |
| elif user\_Month >= 10 and user\_Month <= 12: |
|  |
|  |
| message += " fourth quarter of the year"  **Output** |
| Enter a month as a number between 1 and 12: 12  Month 12 is in the fourth quarter of the year |

**Screenshot**

|  |
| --- |
|  |
|  |  |

Text

Description automatically generated Graphical user interface, text

Description automatically generated

**Project #2**

Text

Description automatically generated

**#2 print screen the output with code below here.**

**Code**

NUMBER\_HOTDOGS\_PER\_PACKAGE = 10

NUMBER\_BUNS\_PER\_PACKAGE = 8

#input

number\_People = int(input("Enter number of people attending the cookout: "))

number\_Hotdogs = int(input("Enter number of hot dogs each person will be given: "))

#process

total\_number\_Hotdogs = number\_People \* number\_Hotdogs

number\_Hotdog\_packages\_needed = total\_number\_Hotdogs // NUMBER\_HOTDOGS\_PER\_PACKAGE

number\_Hotdog\_Buns\_needed = total\_number\_Hotdogs // NUMBER\_BUNS\_PER\_PACKAGE

number\_Hotdogs\_leftover = total\_number\_Hotdogs % NUMBER\_HOTDOGS\_PER\_PACKAGE

number\_Hotdog\_Buns\_leftover = total\_number\_Hotdogs % NUMBER\_BUNS\_PER\_PACKAGE

#output

print("Minimum number of packages of hot dogs required =", number\_Hotdog\_packages\_needed)

print("Minimum number of packages of hot dog buns required =", number\_Hotdog\_Buns\_needed)

print("Number of hot dogs left over =", number\_Hotdogs\_leftover)

print("Number of hot dogs buns left over =", number\_Hotdog\_Buns\_leftover)

**Output**

Enter number of people attending the cookout: 10

Enter number of hot dogs each person will be given: 50

Minimum number of packages of hot dogs required = 50

Minimum number of packages of hot dog buns required = 62

Number of hot dogs left over = 0

Number of hot dogs buns left over = 4

**Screenshot**

**Graphical user interface, text

Description automatically generated**

**Project #3**

Graphical user interface

Description automatically generated with medium confidence

**#3 print screen the output with code below here.**

**Code**

PRICE\_PER\_PACKAGE = 99.00

#input

number\_Packages = float(input('\nEnter the number of packages purchased: '))

#process

Message = ""

if number\_Packages < 0:

display\_message = "Error. Number of packages must be greater than 0. Try again."

else:

discount\_Percentage = 0

if number\_Packages < 10:

discount\_Percentage = 0

elif number\_Packages >= 10 and number\_Packages <= 19:

discount\_Percentage = .10

elif number\_Packages >= 20 and number\_Packages <= 49:

discount\_Percentage = .20

elif number\_Packages >= 50 and number\_Packages <= 99:

discount\_Percentage = .30

elif number\_Packages >= 100:

discount\_Percentage = .40

package\_Total = number\_Packages \* PRICE\_PER\_PACKAGE

discount\_Amount = (package\_Total) \* discount\_Percentage

grand\_Total = package\_Total - discount\_Amount

Message = "\nDiscount amount = $" + format(discount\_Amount, ',.2f') + \

"\nGrand total = $" + format(grand\_Total, ',.2f')

#output

print(Message)

**Output**

Enter the number of packages purchased: 12

Discount amount = $118.8

Grand total = $1,069.20

**Screenshot**

**Text

Description automatically generated** Text

Description automatically generated

**Submit this document to Module 2 Homework**