ICTPRG302 - Apply introductory programming techniques –

Session 6 Worksheet

While Loop

Task 1. Write a python program to read a number and print the binary of that number interactively (that is, converts decimal to binary number). You can convert your input to binary using bin() function.

number = int(input (…)) # replace … with your code

while number != 0:

if number == 0:

continue

# this will print in binary

… = bin(number).replace('0b','') # replace …with your code

print(binary\_number)

number = … # replace …with your code

Output:

Text

Description automatically generated

Task 2. Write a python program to convert given binary value to integer (decimal). You can use int() function and pass it the base of the input number 2 (for a binary number):

bin\_number= input("Enter a binary number or type 0 to end program: ")

while bin\_number != "0":

if bin\_number == "0":

continue

#this will print in decimal

… = int(bin\_number, 2) # replace …with your code,

print(decimal\_number)

bin\_number = … # replace …with your code

Graphical user interface, application

Description automatically generated

Task 3. Write a program that will ask the user to enter the correct password. The maximum number of attempts is 4.

max\_attempts = 4

password= input("Enter your password: ")

complex\_password = "P@ssw0rd"

count = 0

while password != … : # replace …with your code

if password == complex\_password:

continue

count = … # replace … with your code, increase count by 1

if count >= max\_attempts:

print("Your account is locked.")

break

else:

password = input("Enter your password: ")

Output:

Text

Description automatically generated