Lab Manual 6

```
count = 1
# condition: Run loop till count is less than 3
while count < 3:
   print(count)
   count = count + 1
#Example: Print numbers less than 5
'''count = 1
# run loop till count is less than 5
while count < 5:
   print(count)
   count = count + 1'''

#The loop with continuing forever if you forgot to increment counter in the above example
'''count = 1
# run loop till count is less than 5
while count < 5:
   print(count)'''

# Check how many times a given number can be divided by 3 before it is less than or equal to 10.
'''count = 0
number = 180
while number > 10:
   # divide number by 3
   number = number / 3
   # increase count
   count = count + 1
print('Total iteration required', count)'''

#Example 1: Assure proper input from user
#In this example, we want a user to enter any number between 100 and 500.
# We will keep asking the user to enter a correct input until he/she enters the number within a
given range.
'''number = int(input('Enter any number between 100 and 500 '))
# number greater than 100 and less than 500
while number < 100 or number > 500:
   print('Incorrect number, Please enter correct number:')
   number = int(input('Enter a Number between 100 and 500 '))
else:
   print("Given Number is correct", number)'''

#Infinite while loop
'''while True:
   print('Hello')'''

#Print even and odd numbers between 1 to the entered number.

'''n = int(input('Please Enter Number '))
while n > 0:
   # check even and odd
   if n % 2 == 0:
      print(n, 'is a even number')
   else:
      print(n, 'is a odd number')
   # decrease number by 1 in each iteration
   n = n - 1'''
```

```
#Write a while loop to display each character from a string and if a character is number then stop the loop.

'''name = 'Jesaa29Roy'
size = len(name)
i = 0
# iterate loop till the last character
while i < size:
   # break loop if current character is number
   if name[i].isdecimal():
      break;
   # print current character
   print(name[i], end=' ')
   i = i + 1'''

#Write a while loop to display only alphabets from a string.

'''name = 'Jesaa29Roy'

size = len(name)
i = -1
# iterate loop till the last character
while i < size - 1:
   i = i + 1
   # skip while loop body if current character is not alphabet
   if not name[i].isalpha():
      continue
   # print current character
   print(name[i], end=' ')'''


#Use nested while loop to print pattern

'''i = 1
# outer while loop
# 4 rows in pattern
while i < 5:
   j = 0
   # nested while loop
   while j < i:
      print('*', end=' ')
      j = j + 1
   # end of nested while loop
   # new line after each row
   print('')
   i = i + 1'''

#for loop inside a while loop

'''i = 1
# outer while loop
while i < 5:
   # nested for loop
   for j in range(1, i + 1):
      print("*", end=" ")
   print('')
   i = i + 1'''
```

```
#Else statement in while loop

#Example 1: Use while loop to print numbers from 1 to 5

'''i = 1
while i <= 5:
   print(i)
   i = i + 1
else:
   print("Done. while loop executed normally")'''

#Else block with break statement in a while loop. In this case, else block will not be executed.

'''i = 1
while i <= 5:
   print(i)
   if i == 3:
      break
   i = i + 1
else:
   print("Done. while loop executed normally")'''

#Example: Reverse a while loop to display numbers from 10 to 1
# reverse while loop
'''i = 10
while i >= 0:
   print(i, end=' ')
   i = i - 1'''


#Example: while loop to iterate string letter by letter

'''name = "Jessa"
i = 0
res = len(name) - 1
while i <= res:
   print(name[i])
   i = i + 1'''

#Example: Use while loop to iterate over a list.

'''numbers = [1, 2, 4, 5, 7]
size = len(numbers)
i = 0
while i < size:
   print(numbers[i])
   i = i + 1'''

#Looping through list

'''count = 0
list1 = ["cherry", "orange", "kiwi", "mango"]
while count < len(list1):
   print(list1[count], end=' ')
   count = count + 1'''

#While Loop for Tuple

'''count = 0
```

```
tuple1 = ("cherry", "orange", "kiwi", "mango")
while count < len(tuple1):
   print(tuple1[count], end=' ')
   count = count + 1'''
```