Loop Control Statements

Lecture six

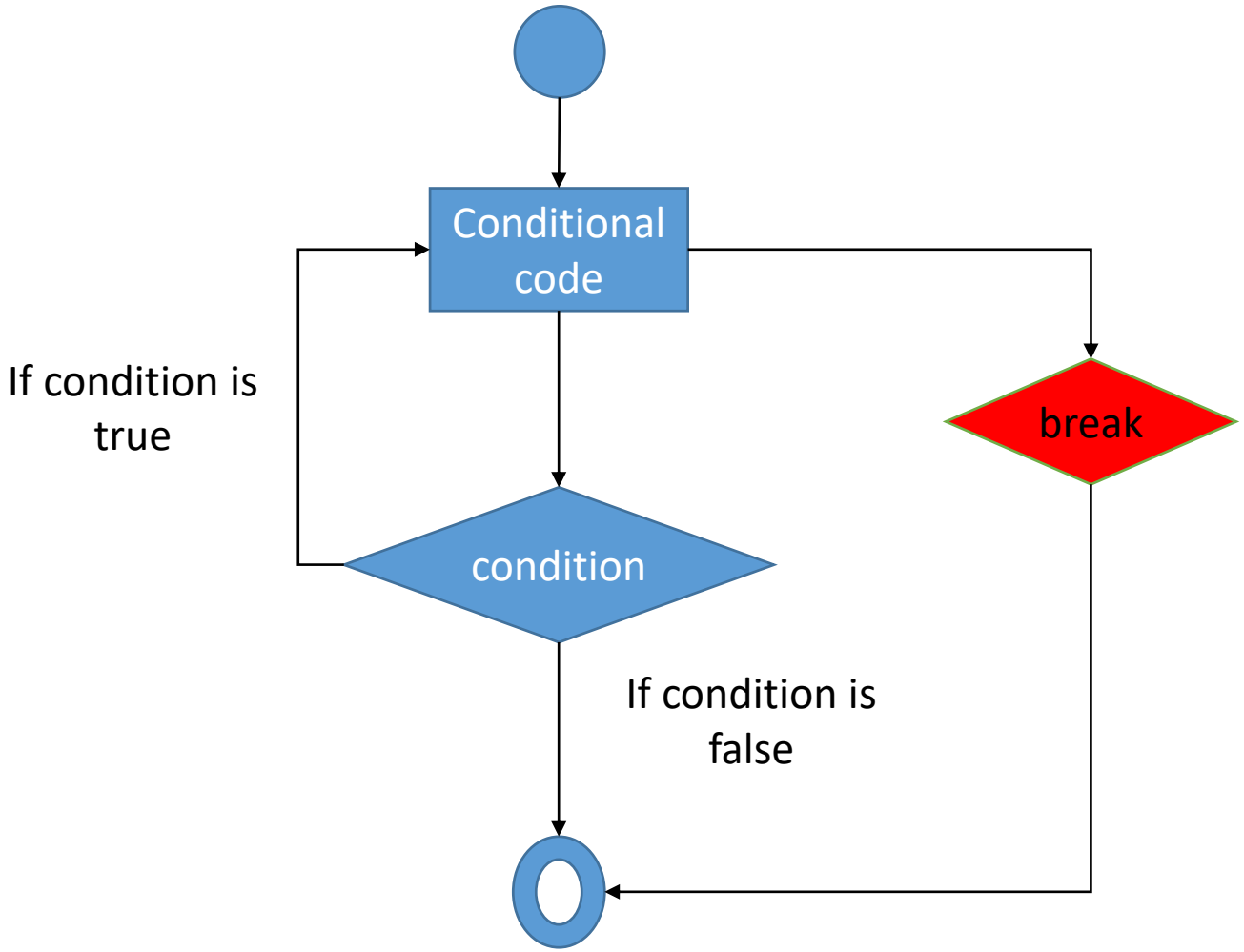
Practical

break statement

- It terminates the current loop and resumes execution at the next statement, just like the traditional break statement in C.
- The most common use for break is when some external condition is triggered requiring a hasty exit from a loop.
- The break statement can be used in both while and for loops.
- If you are using nested loops, the break statement stops the execution of the innermost loop and start executing the next line of code after the block.
- The syntax for a break statement in Python is as follows:

```
break
```

Flow diagram for break statement



break statement example

```
for letter in 'Python':
    if letter =='h':
        break
    print('Current Letter :', letter)
var=10
while var>0:
    print('Current variable value :',var)
    var=var-1
    if var==5:
        break
print("Good bye!")
```

When the code is executed, it produces the following result:

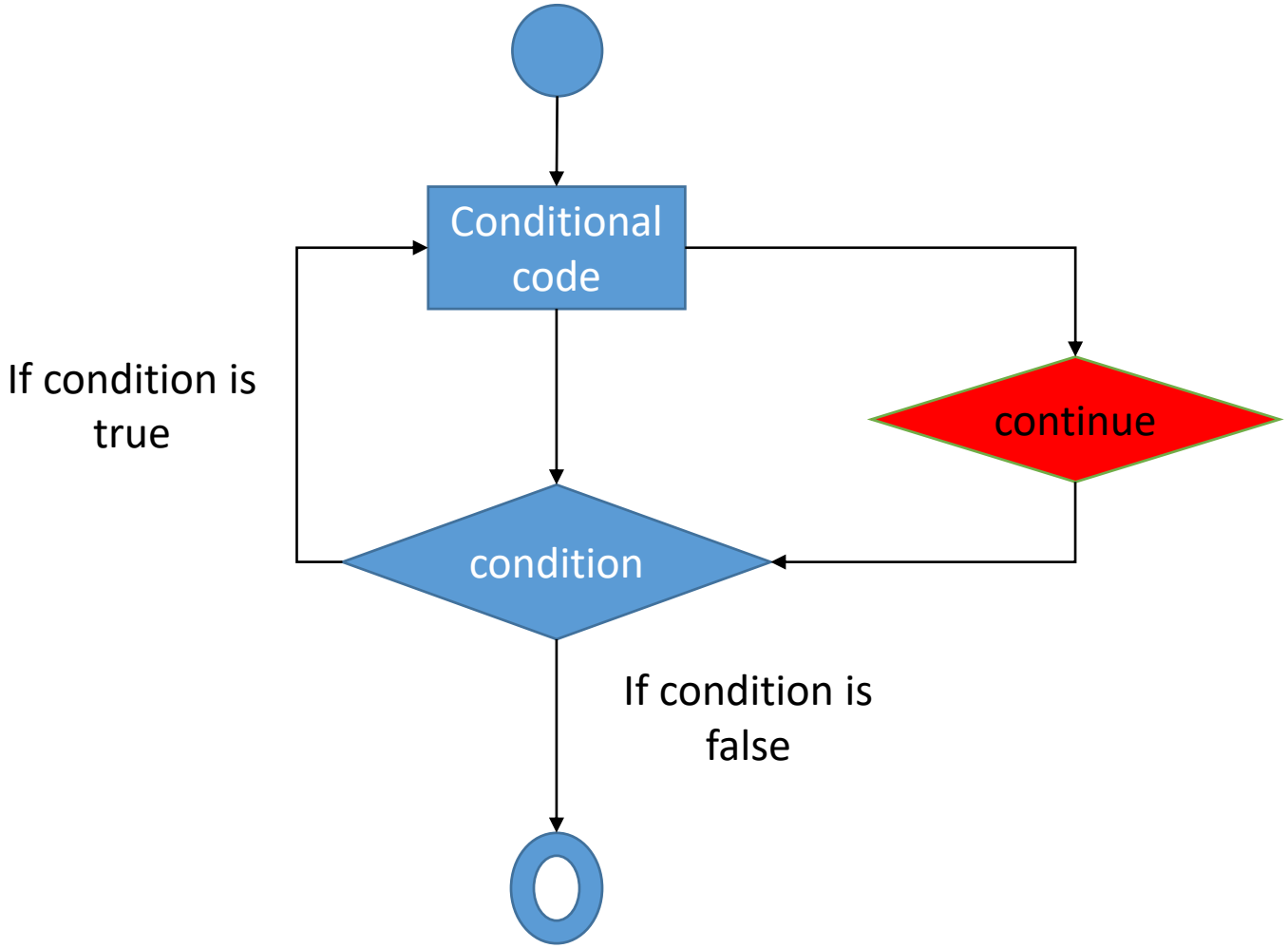
```
Current Letter : P
Current Letter : y
Current Letter : t
Current variable value : 10
Current variable value : 9
Current variable value : 8
Current variable value : 7
Current variable value : 6
Good bye!
```

continue statement

- It returns the control to the beginning of the loop.
- The continue statement rejects all the remaining of statements in the current iteration of the loop and moves the control back to the top of the loop.
- The continue statement can be used in both while and for loops.
- Syntax

continue

Flow diagram for continue statement



continue statement example

```
for letter in 'Python':
    if letter =='h':
        continue
    print('Current Letter :', letter)
var=10
while var>0:
    print('Current variable value :',var)
    var=var-1
    if var==5:
        continue
print("Good bye!")
```

When the above code is executed, it produces the following result:

```
Current Letter : P
Current Letter : y
Current Letter : t
Current Letter : o
Current Letter : n
Current variable value : 10
Current variable value : 9
Current variable value : 8
Current variable value : 7
Current variable value : 6
Current variable value : 5
Current variable value : 4
Current variable value : 3
Current variable value : 2
Current variable value : 1
Good bye!
```

pass statement

- It is used when a statement is required syntactically but you do not want any command or code to execute.
- The pass statement is a null operation; nothing happens when it executes.
- The pass is also useful in places where your code will eventually go, but has not been written yet.
- Syntax

```
pass
```

pass statement example

```
for letter in 'Python':
   if letter=='h':
      pass
      print('This is pass block')
   print('Current Letter :',letter)
print("Good bye!")
```

- When the above code is executed, it produces following result

```
Current Letter : P
Current Letter : y
Current Letter : t
This is pass block
Current Letter : h
Current Letter : o
Current Letter : n
Good bye!
```