LUA - NESTED LOOPS

Lua programming language allows to use one loop inside another loop. Following section shows few examples to illustrate the concept.

Syntax

The syntax for a **nested for loop** statement in Lua is as follows −

```
for init,max/min value, increment
do
   for init,max/min value, increment
   do
      statement(s)
   end
   statement(s)
end
```

The syntax for a **nested while loop** statement in Lua programming language is as follows −

```
while(condition)
do
   while(condition)
   do
      statement(s)
   end
   statement(s)
end
```

The syntax for a **nested repeat...until loop** statement in Lua programming language is as follows −

```
repeat
   statement(s)
   repeat
      statement(s)
   until( condition )
until( condition )
```

A final note on loop nesting is that you can put any type of loop inside of any other type of loop. For example, a **for** loop can be inside a **while** loop or vice versa.

Example

The following program uses a nested **for** loop −

```
j =2
for i=2,10 do
   for j=2,(i/j) , 2 do

      if(not(i%j))
      then
         break
      end

      if(j > (i/j))then
         print("Value of i is",i)
      end

   end
end
```

When you build and run the above code, it produces the following result.

```
Value of i is 8
Value of i is 9
Value of i is 10
```

Value of i is 8
Value of i is 9
Value of i is 10