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A loop can be nested inside of another loop. Perl allows to nest all type of loops to be nested.

Syntax

The syntax for a **nested for loop** statement in Perl is as follows –

```
for ( init; condition; increment ){
   for ( init; condition; increment ){
      statement(s);
   }
   statement(s);
}
```

The syntax for a **nested while loop** statement in Perl is as follows –

```
while(condition){
   while(condition){
      statement(s);
   }
   statement(s);
}
```

The syntax for a **nested do...while loop** statement in Perl is as follows –

```
do{
    statement(s);
    do{
        statement(s);
    }while( condition );
}while( condition );
```

The syntax for a **nested until loop** statement in Perl is as follows —

```
until(condition){
   until(condition){
     statement(s);
   }
   statement(s);
}
```

The syntax for a **nested foreach loop** statement in Perl is as follows –

```
foreach $a (@listA){
  foreach $b (@listB){
    statement(s);
  }
  statement(s);
}
```

Example

The following program uses a nested while loop to show the usage –

```
#/usr/local/bin/perl
$a = 0;
$b = 0;
```

```
# outer while loop
while($a < 3){
    $b = 0;
    # inner while loop
    while($b < 3){
        print "value of a = $a, b = $b\n";
        $b = $b + 1;
    }
    $a = $a + 1;
    print "Value of a = $a\n\n";
}</pre>
```

This would produce the following result –

```
value of a = 0, b = 0
value of a = 0, b = 1
value of a = 0, b = 2
Value of a = 1

value of a = 1, b = 0
value of a = 1, b = 1
value of a = 1, b = 2
Value of a = 2, b = 0
value of a = 2, b = 1
value of a = 2, b = 1
value of a = 3
```