

## 1. Code with error

```
int c = 0, product = 0;
while (c <= 5)
product = product * 5;
c = c + 1;
```

### code without error

```
int c = 0, product = 0;
while (c <= 5)
{
    product *= 5;
    c += 1;
}
Console.WriteLine("Product: "+product);
Console.WriteLine("C: "+c);
Console.ReadKey();
```

The issue was the brackets missing which will result the first line (product = product \* 5) only to be executed not the second one (c = c + 1).

## 2. Code with error

```
int a = 31, b = 0, sum = 0;
while (a != b) {
sum = sum + a;
b = b + 2;
}
```

### Code without error

```
int a = 31, b = 0, sum = 0;
while (a >= b)
{
    sum += a;
    b += 2;
}
Console.WriteLine("Sum: "+sum);
Console.WriteLine("B: "+b);
Console.ReadKey();
```

The issue was the condition given inside the brackets. The condition says (a != b) which will iterate indefinitely because a and b both will be constants and always will be true. So, this will not print an output. So, to make it stop at one point I've given the condition as (a >= b). In this condition the iteration will stop at one point and give an output.

### 3. Code with error

```
int x = 1;
int total;
while (x <= 10) {
    total = total + x;
    x = x + 1;
}
```

Code without error

```
int x = 1;
int total = 0;
while (x <= 10)
{
    total = total + x;
    x = x + 1;
}
Console.WriteLine("Total: "+total);
Console.WriteLine("X: "+x);
Console.ReadKey();
```

The issue was the variable total wasn't assigned an initial value. When the loop iterates, the code which increments total by x needs an initial value to increment it since it was missing an initial value the code couldn't run and showed an error. Now the fixed code will run perfectly.

### 4. Code with error

```
while (y < 10) {
    int y = 0;
    Console.WriteLine("y" + y);
    y = y + 1;
}
```

Code without error

```
int y = 0;
while (y < 10)
{
    y = y + 1;
    Console.WriteLine("y: " + y);
}
Console.ReadKey();
```

The issue is that the y shouldn't be declared inside the loop. It should be declared outside the loop so that the condition given inside the loop will not show an error.

## 5. Code with error

```
int z = 0;
while (z > 0) {
    z = z - 1;
    Console.WriteLine("z: " + z);
}
```

Code without error

```
int z = 5;
while (z >= 0)
{
    z = z - 1;
    Console.WriteLine("z: " + z);
}
Console.ReadKey();
```

The issue was the  $z = 0$ , this will not let the condition be executed because  $z$  is not more than 0, it is equal to 0, so for that, set  $z$  to be more than 0 and set the condition to be  $(z \geq 0)$  which will now run because the  $z$  is now more than or equal to 0. The condition will now iterate until it is true and give an output.

## 6. Code with error

```
For (int count = 1, count < 100, count++) {
    Console.WriteLine("Hello");
}
```

Code without error

```
for (int count = 1; count < 100; count++)
{
    Console.WriteLine("Hello");
}
Console.ReadKey();
```

The issue is that for the conditions inside the for loop, each should be divided by a `;`, semicolon not with a comma.

## 7. Code with error

```
for(int I =1; i>10; i++) {  
    if (i>2) {  
        Console.WriteLine ("Flower");  
    }  
}
```

Code without error

```
for (int i = 1; i < 10; i++)  
{  
    if (i > 2)  
    {  
        Console.WriteLine("Flower");  
    }  
    Console.WriteLine("-----");  
}  
Console.WriteLine("finish");  
Console.ReadKey();
```

The issue was that inside the for loop the i was written in capital or different from the other i's. so change that i to simple letter and it will be fine.