

## Learn Go: Loops

A loop repeats a block of code until a certain condition is met.

A loop repeats a block of code until a certain condition is met.

A definite loop repeats a fixed number of times. It has: - an initial statement which creates a new variable, - a conditional expression that determines if the loop runs, - and a post statement that runs each time the loop completes.

A definite loop repeats a fixed number of times. It has:

- an initial statement which creates a new variable,
- a conditional expression that determines if the loop runs,
- and a post statement that runs each time the loop completes.

```
for number := 0; number < 5; number++ {
  fmt.Print(number)
}</pre>
```

An indefinite loop repeats while a condition remains true.

An indefinite loop repeats while a condition remains true.

```
number := 0 // Initialize a variable to
be used inside the loop
for number < 5 {
   fmt.Println(number)
   number++ // Update the variable being
used
}</pre>
```

In Go, the language is simplified by using only the for keyword for both definite and indefinite loops.

In Go, the language is simplified by using only the for keyword for both definite and indefinite loops.



## When a condition is true forever, then a special type of indefinite loop is created, called an infinite loop.

When a condition is true forever, then a special type of indefinite loop is created, called an infinite loop.

```
for {
    // Loop body logic
    // This repeats forever
}
// This is never reached
```

## The break keyword stops the loop at the current iteration.

The break keyword stops the loop at the current iteration.

```
animals := []string{""Cat"", ""Dog"",
""Fish"", ""Turtle""}
for index := 0; index < len(animals);
index++ {
  if animals[index] == ""Dog"" {
    fmt.Println(""Found the perfect
animal!"")
    break // Stop searching the array
}
</pre>
```

## The continue keyword skips the loop to the next iteration.

The continue keyword skips the loop to the next iteration.

```
jellybeans := []string{""green"",
""blue"", ""yellow"", ""red"", ""green"",
""yellow"", ""red""}
for index := 0; index < len(jellybeans);
index++ {
  if jellybeans[index] == ""green"" {
    continue
  }
  fmt.Println(""You ate the"",
jellybeans[index], ""jellybean!"")
}</pre>
```



In Go, the range keyword can be used in a map or array to work through each contained item one at a time within a loop.

In Go, the range keyword can be used in a map or array to work through each contained item one at a time within a loop.

```
letters := []string{""A"", ""B"", ""C"",
""D""}
for index, value := range letters {
   fmt.Println(""Index:"", index,
""Value:"", value)
}
```

