# Recursion

In this lesson, we will briefly go through recursion.

**We'll cover the following**

## Recursive Functions

We can also call the function itself from its body. Such a function is called a **recursive function**. A **recursive function** is a function that calls itself during its *execution*.

Recursion enables the function to repeat itself several times, collecting the result at the end of each iteration.

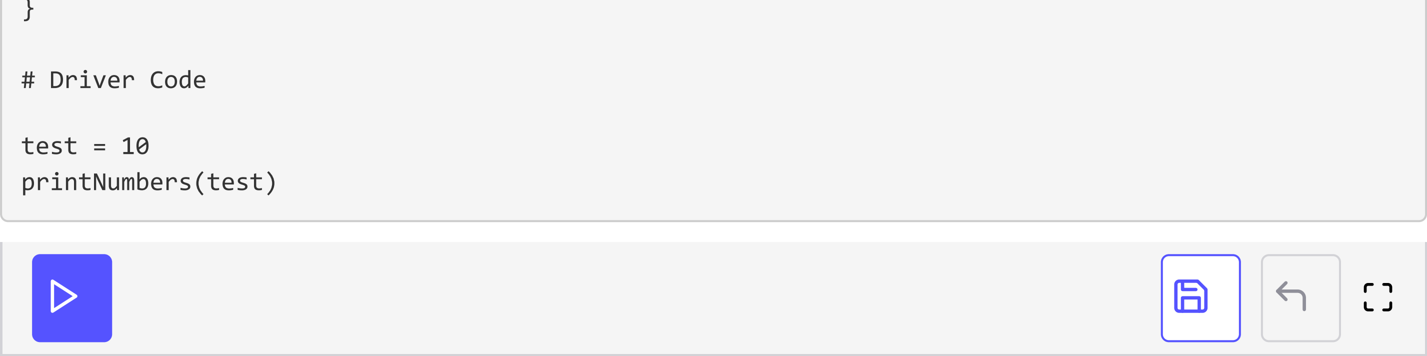
### Components of a Recursive Function

Each recursive function has two parts:

- **Base Case:** The base case is where the call to the function stops, i.e., it does not make any subsequent recursive calls.
- **Recursive Case:** The recursive case is where the function calls itself again and again until it reaches the base case.

Let's have a look at an example. Here, we print numbers from 10 to 1 using recursion. We call the function `printNumbers()` inside itself.

```
printNumbers <- function(myNumber)
{
  if (myNumber == 1) # Base Case
  {
    print(myNumber)
  } else
  {
    print(myNumber)
    printNumbers(myNumber - 1) # Recursive Case
  }
}
```



```
}

# Driver Code

test = 10
printNumbers(test)
```

Printing numbers 1 to 10 using recursion.

Be very careful while using recursion because it can lead to errors if used carelessly. Let’s do an exercise to brush up your concepts on recursion.