Solution Review: Append Hearts

In this review, we provide a detailed analysis of the solution to the given problem

We'll cover the following

- Solution #1: Using rep()
  - Explanation
- Solution #2: Using replicate()
  - Explanation

Solution #1: Using `rep()`

```
hearts <- function(testVariable)
{
  heart <- "<3"

  vectorOfHearts <- vector("character", 0)
  for(i in testVariable)
  {
    x <- rep(heart, i)
    x <- paste(x, collapse = "")
    vectorOfHearts <-c(vectorOfHearts, x)
  }

  return(vectorOfHearts)
}

# Driver Code
testVariable1 <- c(5, 2)
testVariable2 <- c(3, 3)

hearts(testVariable1)
hearts(testVariable2)
```

Explanation

In the code snippet above, we first create a function:

```
hearts <- function(testVariable)
```

In this function, we define the string `heart <- "<3"` that we need to replicate. Then initiate a loop over all the elements of the vector `testVariable`, that is passed to the function. Using the function:

```
rep(heart, i)
```

we duplicate the `heart` string `i` times.

Solution #2: Using `replicate()`

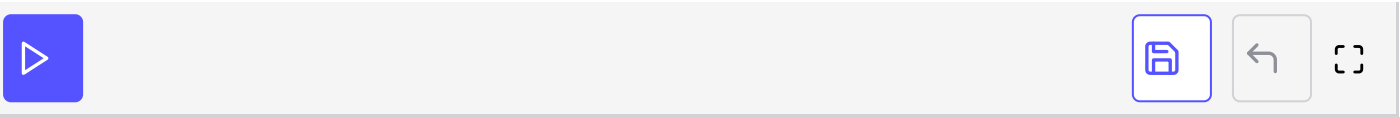
```
hearts <- function(testVariable)
{
  heart <- "<3"

  vectorOfHearts <- vector("character", 0)
  for(i in testVariable)
  {
    x <- replicate(i, heart)
    x <- paste(x, collapse = "")
    vectorOfHearts <-c(vectorOfHearts, x)
  }

  return(vectorOfHearts)
}

# Driver Code
testVariable1 <- c(5, 2)
testVariable2 <- c(3, 3)

hearts(testVariable1)
hearts(testVariable2)
```



Explanation

We can also use the function `replicate()` to solve this problem.

```
replicate(i, heart)
# Here i is the number of times the string needs to be duplicated and heart i
s the string being replicated.
```

In the next lesson, we have another challenge for you to conquer.