Challenge-6

Insert your name here

2023-09-19

Questions

Question-1: Countdown Blastoff (While Loop)

Create a program that simulates a rocket launch countdown using a while loop. Start from 10 and countdown to "Blastoff!" with a one-second delay between each countdown number. Print a message when the rocket launches.

Hint: You may want to use `cat` command to print the countdown and `Sys.sleep` for incorporating the delay

Solutions:

```
# Enter code here
printCountdown <- function(count) {
  if (count > 0) {
    cat(count, "\n")
    for (i in 1:1e8) {}
    printCountdown(count - 1)
  } else {
    cat("Blastoff!\n")
  }
}


countdownValue <- 10
cat("Countdown:\n")
```

```
## Countdown:
```

```
printCountdown(countdownValue)
```

```
## 10
## 9
## 8
## 7
## 6
## 5
## 4
## 3
## 2
## 1
## Blastoff!
```

```
cat("Rocket Launched!\n")
```

```
## Rocket Launched!
```

Question-2: Word Reverser (for Loop)

Develop a program that takes a user-entered word and uses a while loop to print the word's characters in reverse order. For example, if the user enters "hello," the program should print "olleh."

Hint: You may want to use `substr` command to access each character of the input word, and `paste` command to join the reversed letters one at a time

Solutions:

```
# Enter code here
reverseWord <- function(word) {
  reversed <- ""
  i <- nchar(word)

  while (i > 0) {
    char <- substr(word, i, i)
    reversed <- paste(reversed, char, sep = "")
    i <- i - 1
  }

  cat("Reversed word:", reversed, "\n")
}

userInput <- readline("Enter a word: ")
```

```
## Enter a word:
```

```
reverseWord(userInput)
```

```
## Reversed word:
```