# Challenge-6

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## 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:**

```r
# Enter code here
i <- 10
while (i <= 10 && i > 0) {
  cat(i,"...")
  Sys.sleep(1)
  i <- i-1
}
```

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

```r
print("Blastoff!")
```

```
## [1] "Blastoff!"
```

**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:**

```r
# Enter code here

input <- readline("Enter a word: ")
reverse <- function() {
  i <- nchar(input)
  reversed <- ""
  while (i >= 1) {
```

```r
    letter <- substr(input, i, i)
    reversed <- paste(reversed, letter, sep = "")
    i <- i - 1
  }
  return(reversed)
}

reverse()
```