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

Output preview: Here is how the countdown could look like

Solutions:

```
count <- 10

while (count > 0){
  cat(count, "...")
  count <- count - 1
  Sys.sleep(1)
}
```

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

```
cat("Blastoff!")
```

```
## 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:

```
word_reverser <- function(word){
  output <- c()

  for (i in nchar(word):1){
   output <- c(output, substr(word, i, i))
```

```
  }

  paste(output, collapse = "")
}

word <- readline("Your word:")
```

Your word:

```
word <- "hello"
word_reverser(word)
```

[1] "olleh"