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:

```
# Enter code here

countdown <- 10

cat("Rocket launch countdown:\n")
```

```
## Rocket launch countdown:
```

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

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

```
cat("\nThe rocket has launched!")
```

```
##
## The rocket has 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:

```r
# Enter code here# Function to reverse a string

entry <- "hello"

string_split <- c()
for (x in 1:nchar(entry)) {
  string_split <- c(string_split,substr(entry,x,x))
}

paste0(rev(string_split),collapse ="")
```

```
## [1] "olleh"
```