

# 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
i <- 10
while (i >= 1) {
  cat(i, "... ")
  Sys.sleep(1)
  i <- i - 1
}
```

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

```
cat("\nBlast Off!")
```

```
##
## Blast Off!
```

### 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
#user_input <- readline(prompt = "Enter a Word: ")
user_input <- "hello"
string_split <- c()
for(x in 1:nchar(user_input)){
  string_split <- c(string_split, substr(user_input, x, x))
}
paste0(rev(string_split), collapse="")
```

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