

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
```

```
for (time in 10:1) {  
    cat(time, "...")  
    Sys.sleep(1)  
}
```

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

```
cat("\n", "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:

```
# Enter code here
word <- "orange"

reversed_word <- ""

i <- nchar(word)

while (i > 0) {
  char <- substr(word, i,i)
  reversed_word <- paste(reversed_word, char, sep = "")
  i <- i - 1
}
cat(reversed_word, "\n")
```

```
## egnaro
```