

Challenge-6

Loy Yee Keen

2023-09-20

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 >= 0) {
  if (i == 10) {
    cat("10\n")
  } else if (i == 0) {
    cat("Blastoff!\n")
  } else {
    cat(i, "\n")
  }
  Sys.sleep(1)
  i <- i - 1
}
```

```
## 10
## 9
## 8
## 7
## 6
## 5
## 4
## 3
## 2
## 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:

```
# Enter code here
```

```
word <- readline("Enter a word: ")
```

```
## Enter a word:
```

```
i <- nchar(word)
reversed_word <- character(1)
while (i > 0) {
  char <- substr(word, i, i)
  reversed_word <- paste0(reversed_word, char, sep = "")
  i <- i - 1
}
```

```
cat("Reversed word:", reversed_word, "\n")
```

```
## Reversed word:
```