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:

```r
# Enter code here
countdown <- 10
while(countdown > 0){
  cat(countdown, "... ", sep = "")
  Sys.sleep(1)
  countdown <- countdown - 1
}
```

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

```r
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:

```r
# Enter code here
output <- ""
reverse <- function(input){
  for(i in 0:nchar(input)){
    output <- paste(output, substr(input,nchar(input)-i,nchar(input)-i))
  }
}
```

```
  print(output)
}
reverse("was it a car or a cat i saw")
```

```
## [1] " w a s   i   t a c   a   r o   r a c   a   t i   s a w "
```