

# Challenge-6

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**Welcome!** Hope you have watched the lecture videos and followed the instructions in code-along. Go through the steps described below, *carefully*. It is totally fine to get stuck - **ASK FOR HELP**; reach out to your friends, TAs, or the discussion forum on Canvas.

Here is what you have to do,

1. **Pair** with a neighbor and work
2. **Download** the `Challenge-6.pdf` and `Challenge-6.Rmd` from Canvas
3. **Move** the downloaded files to the folder, “Week-6” that you created previously
4. **Set** it as the working directory
5. **Edit** content in `Challenge-6.Rmd` wherever indicated following instructions in `Challenge-6.pdf`
6. **Remember** to set `eval=TRUE` in the code chunk to generate the output
7. **Ensure** that `echo=TRUE` so that the code is rendered in the final document
8. **Code output** may not be required in all cases, use your discretion
9. **Inform** the tutor/instructor upon completion
10. **Submit** the document on Canvas after they approve
11. **Attendance** will be marked only after submission
12. Once again, **do not hesitate** to reach out to the tutors/instructor, if you are stuck

## 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

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

**Solutions:**

```
# Enter code here
```

### 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
```