# Shell Topic 03: For Loops

**Note 1.** The shell is a fully fledged programming environment with all of the procedural constructs that you are familiar with. For loops have subtle interactions with the $ operator and various types of quotation marks.

**Problem 2.** Write the output of the final command in the following shell script.

```
1  $ cd; rm -rf quiz; mkdir quiz; cd quiz
2  $ for file in a b c d e f; do touch $file; done
3  $ ls | wc -l
```

Fraction of LLMs with correct answer: 13 / 13 = 1.00

**Problem 3.** Write the output of the final command in the following shell script.

```
1  $ cd; rm -rf quiz; mkdir quiz; cd quiz
2  $ for file in 'a b' 'c d' 'e f'; do touch $file; done
3  $ ls | wc -l
```

Fraction of LLMs with correct answer: 10 / 13 = 0.77

**Problem 4.** Write the output of the final command in the following shell script.

```
1  $ cd; rm -rf quiz; mkdir quiz; cd quiz
2  $ for file in 'a b' 'c d' 'e f'; do touch "$file"; done
3  $ ls | wc -l
```

Fraction of LLMs with correct answer: 12 / 13 = 0.92

**Problem 5.** Write the output of the final command in the following shell script.

```
1  $ cd; rm -rf quiz; mkdir quiz; cd quiz
2  $ for file in 'a b' 'c d' 'e f'; do touch '$file'; done
3  $ ls | wc -l
```

Fraction of LLMs with correct answer: 8 / 13 = 0.62

**Problem 6.** Write the output of the final command in the following shell script.

```
1 $ cd; rm -rf quiz; mkdir quiz; cd quiz
2 $ for file in a b c $(echo hello world) d e f; do touch "$file"; done
3 $ ls | wc -l
```

Fraction of LLMs with correct answer: $10 / 13 = 0.77$

**Problem 7.** Write the output of the final command in the following shell script.

```
1 $ cd; rm -rf quiz; mkdir quiz; cd quiz
2 $ for file in 'a b' 'c $(echo hello world) d' 'e f'; do touch "$file"; done
3 $ ls | wc -l
```

Fraction of LLMs with correct answer: $12 / 13 = 0.92$

**Problem 8.** Write the output of the final command in the following shell script.

```
1 $ cd; rm -rf quiz; mkdir quiz; cd quiz
2 $ for file in "a b" "c $(echo hello world) d" "e f"; do touch "$file"; done
3 $ ls | wc -l
```

Fraction of LLMs with correct answer: $12 / 13 = 0.92$

**Problem 9.** Write the output of the final command in the following shell script.

```
1 $ cd; rm -rf quiz; mkdir quiz; cd quiz
2 $ for file in "a b" "c $(echo hello world) d" "e f"; do touch $file; done
3 $ ls | wc -l
```

Fraction of LLMs with correct answer: $8 / 13 = 0.62$

# LLM Model Performance