Chapter 4 - Strings

Strings are used to store and manipulate text.
String can be created using the following syntax:

```
let name = "Harry" → Creates a string
name.length
    ↳ This property prints length of the string
```

Strings can also be created using single quotes

```
let name = 'Harry'
```

Template Literals
Template literals use backtics instead of quotes to define a string

```
let name = `Harry`
```

With template literals, it is possible to use both single as well as double quotes inside a string

```
let Sentence = `The name "is" Harry's`
               ↓ backtic   ↓ double quote   ↓ Single quote
```

We can insert variable directly in template literal. This is called string interpolation

```
let a = `This is ${name}` → Prints 'This is a Harry'
                 name is a variable
```

Escape Sequence Characters

If you try to print the following string, JavaScript will misunderstand it

```
let name = 'Adam D'Angelo'
```

We can use single quote escape sequence to solve the problem

```
let name = 'Adam D\'Angelo'
```

Similarly we can use \" inside a string with double quotes

Other escape sequence characters are as follows

- \n → Newline
- \t → Tab
- \r → Carriage Return

String properties and Methods

1. `let name = "Harry"`
   `name.length` → prints 5

2. `let name = "Harry"`
   `name.toUpperCase()` → prints HARRY

3. `let name = "Harry"`
   `name.toLowerCase()` → prints harry

4) let name = "Harry"
(0, 1, 2, 3, 4)
name.slice(2, 4) → prints rr
(from 2 to 4, 4 not included)

5) let name = "Harry"
name.slice(2) → prints rry
(from 2 to end)

6) let name = "Harry Bhai"
let newName = name.replace("Bhai", "Bhau")

7) let name1 = "Harry"
let name2 = "Naman"
let name3 = name1.concat(name2, "Yes")
↳ We can even use + operator

8) let name = " Harry "
let newName = name.trim()
↳ Removes whitespaces

Strings are immutable. Inorder to access the character at an index we use the following syntax

let name = "Harry"
name[0] → Prints H
name[1] → Prints a

Chapter 4 - Practice Set

1. What will the following print in JavaScript?

```
Console.log("har\"".length)
```

2. Explore the includes, startsWith & endsWith functions of a string

3. Write a program to convert a given string to lowercase

4. Extract the amount out of this string

"Please give Rs 1000"

5. Try to change 4th character of a given string. Were you able to do it?