

## String In Python

A string in Python is a sequence of characters. It can include letters, numbers, symbols, and whitespace. Strings are used to represent text data.

**Note:** You can create a string by enclosing characters in either single quotes (') or double quotes (").

```
print("This is String")
print('This is also String')
```

### Example 1: Greeting Message

Imagine you are developing a chatbot that greets users.

```
user_name = "John"
greeting = "Hello, " + user_name + "! Welcome to our service."
print(greeting)
```

### Common String Method in Python

Method	Description
str.upper()	Converts all characters in the string to uppercase
str.lower()	Converts all characters in the string to lowercase
str.capitalize()	Capitalizes the first character of the string
str.title()	Capitalizes the first character of each word
str.strip()	Removes leading and trailing whitespace
str.replace(a, b)	Replaces all occurrences of substring a with substring b
str.split(sep)	Splits the string into a list using sep as the delimiter

### Example 2: String Methods

Here are real life examples of different string methods in Python

```
# Strings
user_input = "hello world"
email = "John.Doe@Example.com"
sentence = "welcome to the party."
book_title = "to kill a mockingbird"
username = "  alice  "
comment = "This is a bad example."
items = "apple,banana,cherry"

# 1. str.upper()
uppercase_input = user_input.upper()
print(f"Uppercase: {uppercase_input}")

# 2. str.lower()
normalized_email = email.lower()
print(f"Lowercase email: {normalized_email}")

# 3. str.capitalize()
capitalized_sentence = sentence.capitalize()
print(f"Capitalized sentence: {capitalized_sentence}")

# 4. str.title()
formatted_book_title = book_title.title()
print(f"Title Case: {formatted_book_title}")

# 5. str.strip()
cleaned_username = username.strip()
print(f"Stripped username: '{cleaned_username}'")

# 6. str.replace(a, b)
censored_comment = comment.replace("bad", "good")
print(f"Censored comment: {censored_comment}")

# 7. str.split(sep)
split_items = items.split(",")
print(f"Split items: {split_items}")
```



## Challenge 8

Write a Python program that takes a user's full name as input and Convert the full name to title case (capitalize the first letter of each word). Also remove trailing and leading space.