# Cleaning and Preparing Data in Python: Takeaways

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## **Syntax**

#### TRANSFORMING AND CLEANING STRINGS

• Replace a substring within a string:

```
green_ball = "red ball".replace("red", "green")
```

• Remove a substring:

```
friend_removed = "hello there friend!".replace(" friend", "")
```

• Remove a series of characters from a string:

```
bad_chars = ["'", ",", ".", "!"]
string = "We'll remove apostrophes, commas, periods, and exclamation marks!"
for char in bad_chars:
    string = string.replace(char, "")
```

• Convert a string to title cases:

```
Hello = "hello".title()
```

• Check a string for the existence of a substring:

```
if "car" in "carpet":
    print("The substring was found.")
else:
    print("The substring was not found.")
```

• Split a string into a list of strings:

```
split_on_dash = "1980-12-08".split("-")
```

• Slice characters from a string by position:

```
last_five_chars = "This is a long string."[:5]
```

• Concatenate strings:

```
superman = "Clark" + " " + "Kent"
```

## Concepts

- When working with comma separated value (CSV) data in Python, it's common to have your data in a "list of lists" format, where each item of the internal lists are strings.
- If you have numeric data stored as strings, sometimes you will need to remove and replace certain characters before you can convert the strings to numeric types, like int and float .
- Strings in Python are made from the same underlying data type as lists, which means you can index and slice specific characters from strings like you can lists.

### Resources

• Python Documentation: String Methods

