

## Text Cleaner Utility Documentation

### Overview

This document describes a simple Python utility used for basic text cleaning operations such as removing spaces, removing special characters, and converting text to lowercase.

### Module Description

#### **text\_cleaner.py**

Contains the `text_cleaner` class with the following methods:

- **remove\_extra\_space(s)**

Removes all spaces from the input string and prints the result.

- **remove\_special\_characters(s)**

Removes all special characters from the input string while keeping letters and numbers. The cleaned text is stored for further processing.

- **normalize\_case(s)**

Converts the previously cleaned text into lowercase and prints the result.

### How to Run the Code

1. Ensure Python 3 is installed.
2. Place `text_cleaner.py` in your working directory.
3. Open a Python interpreter and run:

```
from text_cleaner import text_cleaner
tc = text_cleaner()
tc.remove_extra_space("Hello World")
tc.remove_special_characters("#Hello!!!123")
tc.normalize_case("HELLO")
```

### How to Run Tests

This project does not include automated tests. Testing can be done manually by calling each method with sample input values in the Python interpreter.

### Sample Input and Output

```
remove_extra_space("Hello World") → HelloWorld
remove_special_characters("#Hello!!!123") → Hello123
normalize_case("HELLO123") → hello123
```

### Notes

- Methods print output directly to the console.
- `normalize_case` depends on `remove_special_characters` being called first.