

## COMP110: String Manipulation

Strings are sequences of characters used for text data.

### 1. Declaring Strings

```
greeting = "Hello, world!"
```

```
quote = 'Python is fun.'
```

### 2. String Concatenation

```
first = "Hello"
```

```
second = "World"
```

```
message = first + " " + second
```

### 3. String Formatting

```
name = "Alice"
```

```
print(f"Hello, {name}!")    # Output: Hello, Alice!
```

### 4. String Methods

```
- upper(): "abc".upper() -> "ABC"
```

```
- lower(): "ABC".lower() -> "abc"
```

```
- strip(): " hello ".strip() -> "hello"
```

```
- replace(): "hello".replace("h", "y") -> "yello"
```

```
- split(): "a,b,c".split(",") -> ['a', 'b', 'c']
```

### 5. String Indexing

```
text = "Python"
```

```
print(text[0]) # Output: P
```

```
print(text[-1]) # Output: n
```

## 6. String Slicing

```
text = "Programming"
```

```
print(text[0:6]) # Output: Progra
```

```
print(text[3:]) # Output: gramming
```