

## Examples of string formatting with different types of data

---

### Strings

```
str.format("{} ", "apple")    → 'apple '  
str.format("pine{}sauce", "apple") → 'pineapplesauce'  
  
str.format("{} {} {}", "apple", "banana", "cherry")  
    → 'apple banana cherry'  
str.format("{0} {1} {2}", "apple", "banana", "cherry")  
    → 'apple banana cherry'  
str.format("{2} {0} {1}", "apple", "banana", "cherry")  
    → 'cherry apple banana'  
str.format("{0} {0} {0}!!!", "yum") → 'yum yum yum!!!'  
  
str.format("{:9}", "apple")    → 'apple   '  
str.format("{:>9}", "apple")  → '   apple'  
str.format("{:<9}", "apple")  → 'apple   '  
str.format("{:^9}", "apple")  → '  apple  '
```

---

### Integers

```
str.format!("{}", 42)        → '42'  
str.format("{:9}", 42)      → '         42'  
str.format("{:09}", 42)     → '000000042'  
str.format("{:<9}", 42)     → '42      '  
str.format("{:>9}", 42)     → '         42'  
str.format("{:^9}", 42)     → '    42   '  
str.format("{:1}", 42)      → '42'
```

---

---

## Floats

```
str.format("{:f}", 3.1)           → '3.100000'  
str.format("{:f}", 3.14)        → '3.140000'  
str.format("{:f}", math.pi)     → '3.141593'  
str.format("{:.3f}", math.pi)   → '3.142'  
str.format("{:.0f}", math.pi)   → '3'  
str.format("{:.0f}", 3.9)       → '4'  
str.format("{:6.3f}", math.pi)  → ' 3.142'  
str.format("{:10.3f}", math.pi) → '      3.142'  
str.format("{:10.0f}", 3.9)     → '          4'  
str.format("{:<10.3f}", math.pi) → '3.142   '  
str.format("{:^10.3f}", math.pi) → '  3.142  '  
str.format("${:.2f}", 1.5)       → '$1.50'  
str.format("${:.2f}", 1.058)    → '$1.06'
```

---

## Putting it all together

```
str.format("{0} {1}s at ${2:.2f} each, {3} {3}!", 42, "apple", 1.5, "yum")  
→ '42 apples at $1.50 each, yum yum!'
```

### Alternative syntax:

```
template = "{0} {1}s at ${2:.2f} each, {3} {3}!"  
template.format(42, "apple", 1.5, "yum")  
→ '42 apples at $1.50 each, yum yum!'
```

---

## Formatting variables using f-strings

```
num = 42      fruit = "apple"      cost = 1.5  
f"{num} {fruit}s at ${cost:.2f} each" → '42 apples at $1.50 each'
```

---