

Topic 14: All String Formatting Types

◆ Types

1. **Old style:** "Hello %s" % name
 2. **str.format():** "Hello {}".format(name)
 3. **f-strings (Python 3.6+):** f"Hello {name}"
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◆ Example + Output

```
name = "Maverick"
```

```
age = 25
```

```
# Old style
```

```
print("Name: %s, Age: %d" % (name, age))
```

```
# format()
```

```
print("Name: {}, Age: {}".format(name, age))
```

```
# f-string
```

```
print(f"Name: {name}, Age: {age}")
```

Output:

```
Name: Maverick, Age: 25
```

```
Name: Maverick, Age: 25
```

```
Name: Maverick, Age: 25
```

◆ Challenges

Solved Challenge 1: Format float to 2 decimals

```
num = 3.14159
```

```
print(f"{num:.2f}") # 3.14
```

Solved Challenge 2: Right-align a string

```
text = "Hi"
```

```
print(f"{text:>10}") # prints spaces + "Hi"
```

Your 18 Challenges:

1. Left-align string in 15 spaces.
2. Center-align string in 20 spaces.
3. Pad number with zeros.
4. Format integer with commas.
5. Format percentage.
6. Scientific notation formatting.
7. Display hex value.
8. Display octal value.
9. Format multiple variables in f-string.
10. Nested formatting in str.format().
11. Use dictionary in format().
12. Use tuple in old style %.
13. Format float to 3 decimals.
14. Display positive/negative numbers with signs.
15. Use fill character for alignment.
16. Dynamic width formatting.
17. Format date using f-string.
18. Use expressions inside f-string.