### **1. How do you concatenate two strings in Python?**

Use the + operator.

**Example**:

a = "Hello"  
b = "World"  
result = a + " " + b

# "Hello World"

### **2. Difference Between + and join() for Concatenating Strings**

* + is used to combine a small number of strings.
* join() is better for combining many strings (like in a list).

**Example**:

# Using +  
a + b  
  
# Using join()  
" ".join(["Hello", "World"]) # Better for many strings

### **3. How Do You Access Individual Characters in a String?**

Use indexing (starts from 0).

**Example**:

text = "Python"  
print(text[0]) # 'P'

### **4. Method to Find the Length of a String**

Use len().

**Example**:

len("Hello") # 5

### **5. Convert a String to Uppercase**

Use .upper()

**Example**:

"hello".upper() # "HELLO"

### **6. Convert a String to Lowercase**

Use .lower()

**Example**:

"HELLO".lower() # "hello"

### **7. Replace Substrings Within a String**

Use .replace(old, new)

**Example**:

"Hello World".replace("World", "Python") # "Hello Python"

### **8. Split a String into a List Using a Delimiter**

Use .split(delimiter)

**Example**:

"one,two,three".split(",") # ['one', 'two', 'three']

### **9. Check if a String Starts with a Substring**

Use .startswith()

**Example**:

"hello".startswith("he") # True

### **10. Check if a String Ends with a Substring**

Use .endswith()

**Example**:

"hello".endswith("lo") # True

### **11. Remove Leading and Trailing Whitespace**

Use .strip()

**Example**:

" hello ".strip() # "hello"

### **12. Find Index of First Occurrence of Substring**

Use .find()

**Example**:

"hello world".find("o") # 4

### **13. Count Occurrences of a Substring**

Use .count()

**Example**:

"banana".count("a") # 3

### **14. Check if String Has Only Alphabetic Characters**

Use .isalpha()

**Example**:

"hello".isalpha() # True

### **15. Check if String Has Only Numeric Characters**

Use .isdigit()

**Example**:

"123".isdigit() # True

### **16. Check if a String Is a Palindrome**

Compare it to its reverse.

**Example**:

s = "madam"  
s == s[::-1] # True

### **17. Reverse a String in Python**

Use slicing.

**Example**:

"hello"[::-1] # "olleh"

### **18. Format a String with Placeholders**

Use f-strings or .format()

**Examples**:

name = "Alice"  
f"Hello, {name}" # f-string  
  
"Hello, {}".format(name) # using format()

### **19. Access a Substring Using Slicing**

Use string[start:end]

**Example**:

text = "Python"  
text[0:3] # "Pyt"

### **20. Remove Specific Characters from a String**

Use .replace()

**Example**:

"hello!".replace("!", "") # "hello"