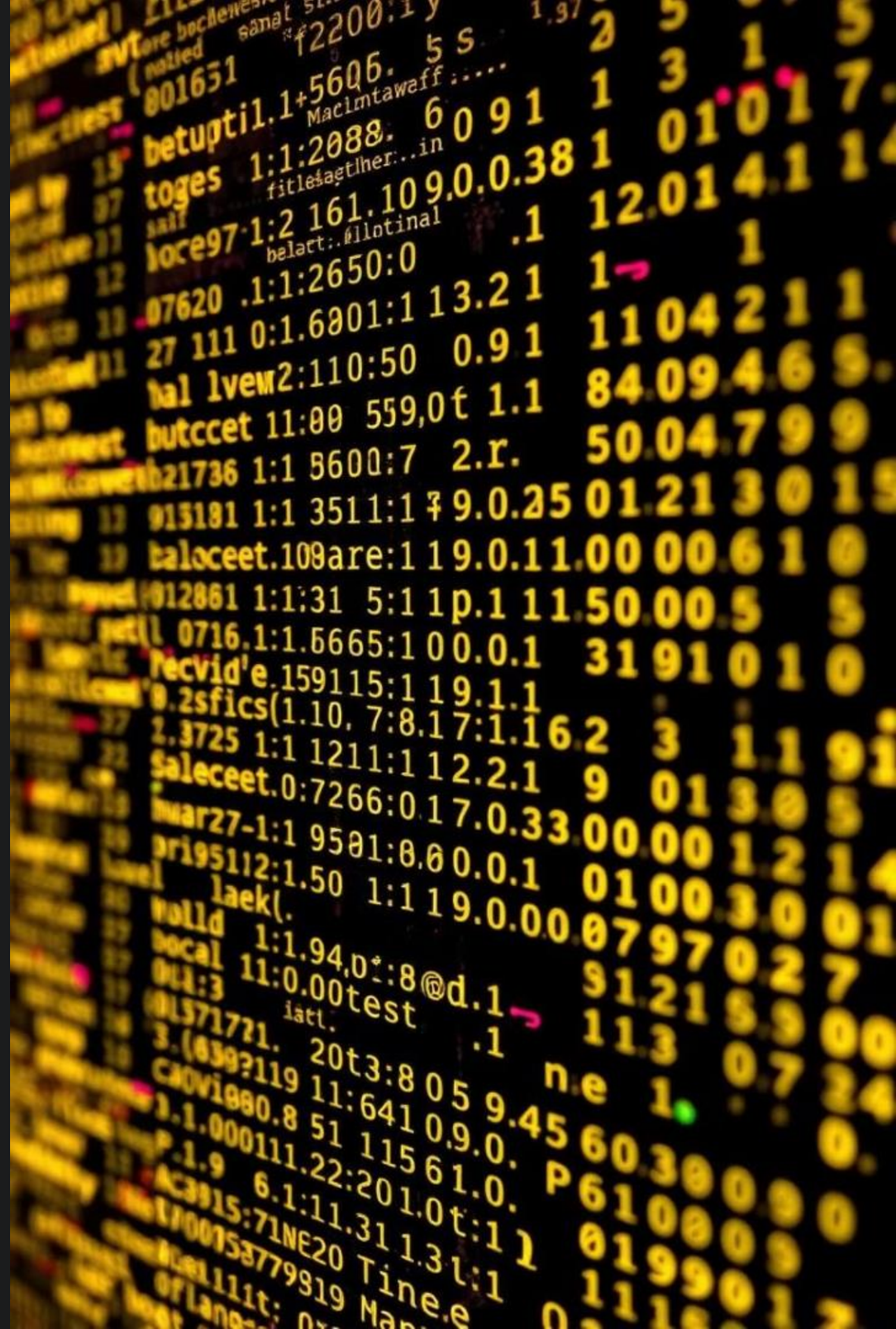
Introduction to Strings in Python

This presentation will guide you through the fundamentals of working with strings in Python, a versatile and widely used programming language.



String Concatenation

Combining Strings

The + operator lets you combine two or more strings into one longer string.

Example

`a = "hello" print("Bansal, " + a)` will output: `Bansal, hello`.

Multiline Strings

Spanning Lines

Use triple quotes (''' or """) to define strings that extend over multiple lines.

Example

`multi_line_str = """This is a multiline string."""` `print(multi_line_str)` will output: This is a multiline string.

Accessing Characters

Indexing

Each character in a string has an index, starting from 0 for the first character.

Example

`name = "Bansal" print(name[0])` will output: `B` (first character).

Looping through Strings

Character by Character

Use a for loop to iterate through each character of a string.

Example

```
name = "Bansal"
```

`for character in name: print(character)` will output: `B a n s a l`.

String Slicing

Extracting Substrings

Slicing lets you extract a portion of a string using the syntax: `substring = string[start:end]`.

Example

```
abc = "Names"
print(abc[0:2])
 # Output: Na (characters from index 0 to index 1)
```

Important Notes

A : b

If a not get value then It become 0

If b not get value not get equals to length of String

Example

- A=“Name”
- Print(a[:4)
- Print([0:])
- Print(a[:])

Negative Slicing

Rules

-1 Consider as last character

-2 Consider as second last character

Example

```
abc = "Names" print(abc[-1:-2])
```

Other Things to notice

-3 remove last three character

-1,-3 will show nothing

The len() Function

Counting Characters

The `len()` function returns the length of a string, which is the number of characters it contains.

Example

`name = "Bansal" print(len(name))` will output: `6` (the length of the string 'Bansal').

Key Takeaways

1 **Concatenation**

Use the + operator to combine strings.

2 **Multiline Strings**

Use triple quotes for strings spanning multiple lines.

3 **Indexing and Slicing**

Access individual characters and extract substrings.

4 **Looping and len()**

Iterate through characters and determine string length.