Python Tuple Examples

1. Basic Tuple

Code:

```python
student = ("Sri", 31, "Student", "Python Full Stack")

print(student[0])   # Access name

print(student[-1])  # Access last item
```

Output:

Output:

Sri

Python Full Stack

2. Tuple with Different Data Types

Code:

```python
profile = ("Sri", 31, ["Reading", "Coding"], ("Hyderabad", "India"))

print(profile[2][0])   # Reading

print(profile[3][1])   # India
```

Output:

Output:

Reading

India

3. Unpacking Tuples

Code:

```python
(name, age, role) = ("Sri", 31, "Student")

print(name)

print(age)

print(role)
```

Sri

31

Student

4. Nested Tuples

Code:

```
education = (
    ("BSc", "Cyber Security"),
    ("Certification", "Python Full Stack"),
    ("Project", "Human Activity Recognition")
)


for degree, subject in education:
    print(degree, "->", subject)
```

Output:

Output:

BSc -> Cyber Security

Certification -> Python Full Stack

Project -> Human Activity Recognition

5. Tuples as Dictionary Keys

Code:

```
locations = {
    (17.3850, 78.4867): "Hyderabad",
    (28.7041, 77.1025): "Delhi"
```

}

print(locations[(17.3850, 78.4867)])

Output:

Output:

Hyderabad

6. Tuple Packing and Unpacking in One Go

Code:

```
student = "Sri", 31, "Cyber Security"

name, age, course = student

print(f"{name} is {age} years old and studies {course}.")
```

Output:

Output:

Sri is 31 years old and studies Cyber Security.

7. Tuple with Repetition & Count

Code:

```
subjects = ("Python", "HTML", "CSS", "Python", "Cyber Security", "Python")


print(subjects.count("Python"))  # Count how many times

print(subjects.index("CSS"))     # Find position
```

Output:

Output:

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