

Training Day 4 Report

Date: 26 June 2025

Overview:

The fourth session of the AI/ML training at Sensations Software Technology focused on **Loops in Python**. Loops are essential for repeating tasks, processing data structures, and building automation in machine learning workflows.

Topics Covered:

1. `while` Loop
2. `for` Loop
3. `range()` Function
4. Loop Control Statements (`break`, `continue`)

Details:

1. `while` Loop:

Repeats a block of code as long as a condition is `True`.

Example:

```
i = 1
while i <= 5:
    print(i)
    i += 1
```

2. `for` Loop:

Iterates over a sequence like list, tuple, string, or range.

Example:

```
for i in range(5):
    print("AI", i)
```

3. `range()` Function:

Used to generate a sequence of numbers.

Example:

```
for i in range(1, 6):
```

```
print(i)
```

4. Loop Control Statements:

- **break**: Exits the loop

```
for i in range(5):  
    if i == 3:  
        break  
    print(i)
```

- **continue**: Skips the current iteration

```
for i in range(5):  
    if i == 3:  
        continue  
    print(i)
```