

# Loop Examples – Python, Java, and JavaScript

## ■ Python Examples

- 1 For loop over list: `fruits = ['apple', 'banana'] for fruit in fruits: print(fruit)`
- 2 For loop with range and step: `for i in range(1, 10, 2): print(i)`
- 3 While loop with condition: `i = 1 while i <= 5: print(i) i += 1`
- 4 For loop with if condition: `for i in range(1,6): if i%2==0: print(i, 'even') else: print(i, 'odd')`
- 5 For-else: `for i in range(3): print(i) else: print('Done')`

## ■ Java Examples

- 1 Classic for loop: `for(int i=1; i<=5; i++) { System.out.println(i); }`
- 2 Enhanced for loop (array iteration): `String[] fruits = {'apple','banana'}; for(String fruit : fruits){ System.out.println(fruit); }`
- 3 While loop: `int i = 1; while(i<=5){ System.out.println(i); i++; }`
- 4 For loop with if: `for(int i=1;i<=5;i++){ if(i%2==0) System.out.println(i + ' even'); else System.out.println(i + ' odd'); }`
- 5 Infinite loop: `for(;;){ System.out.println('Forever'); }`

## ■ JavaScript Examples

- 1 Classic for loop: `for(let i=1;i<=5;i++){ console.log(i); }`
- 2 For-of loop: `let fruits=['apple','banana']; for(let fruit of fruits){ console.log(fruit); }`
- 3 While loop: `let i=1; while(i<=5){ console.log(i); i++; }`
- 4 For loop with if: `for(let i=1;i<=5;i++){ if(i%2==0) console.log(i+' even'); else console.log(i+' odd'); }`
- 5 Infinite loop: `for(;;){ console.log('Forever'); }`