Introduction to Programming

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Lecture 2

Basics 〉 Output

```
x = 15
print(x)
```

Basics 〉 Output

```
x = 15
y = 2.5
print(x??)
```

Basics 〉 Formatted Output

```
x = “IC100”
y = 148
print(??)
```

Basics 〉 Formatted Output

```
x = “IC100”
y = 148
z = “There are ”+str(y)+ “
students in the class of ”+x
print(z)
```

Basics 〉 Formatted Output

```
x = “IC100”
y = 148
z = f“There are {y} students
in the class of {x}”
print(z)
```

```
x = input()
```

Basics 〉 Input

```
x = input(“Enter a number”)
Type of x??
```

Basics 〉 Input

```
x = int(input(“Enter a number”))
Type of x??
```

```
fact = fact * n;
n = n - 1
```

Basics 〉 Operators & Operands

Arithmetic Operators

1. Binary Operators
   - Addition + (`a + b`)
   - Subtraction - (`a - b`)
   - Multiplication * (`a * b`)
   - Division / (`a / b`)
   - Integer Division // (`a // b`)
   - Modulo % (`a % b`)
   - Assignment = (`a = b`)
2. Unary Operators
   - Unary Plus + (`+a`)
   - Unary Minus - (`-a`)
3. Ternary Operators

Basics 〉 Operators & Operands

1. Comparison Operators
   - Equal to == (`a == b`)
   - Not Equal to != (`a != b`)
   - Greater Than > (`a > b`)
   - Less Than < (`a < b`)
   - Greater Than or Equal to >= (`a >= b`)
   - Less than or Equal to <= (`a <= b`)
2. Boolean Operators
   - Logical Not not (`not a`)
   - Logical And and (`a and b`)
   - Logical Or or (`a or b`)
3. Bitwise Operators
4. Compound Assignment Operators.
5. ....

identifier & Expression

```
a = 2*x + 3*y
```

identifier & expression

2*x + 3*y = a Wrong

identifier & expression

```
fact = fact * n
```

Op 〉 Precedence & Associativity

Precedence	Associativity
- (unary) + (unary) not	
* / %	LtoR
+ (binary) - (binary)	LtoR

Precedence	Associativity
< <= > >=	LtoR
== !=	LtoR
and	LtoR
or	LtoR
....	....

Op 〉 Example

```
x = int(input())
y = int(input())
z = int(input())
a=(x+y+z)/3
b=(x+y+z)//3
w=(a==b)
print(w)
```

Op 〉 Example

```
x = int(input())
y = int(input())
z = int(input())
a=(x+y+z)/3
b=(x+y+z)//3
w=(a==b)
print(w)
w=(a==int(b))
print(w)
```

That's It 〉 Questions?

Thank You

For Your Kind Attention