Introduction to programming

Lecture 03

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Variables and data types

```
x = 4          # x is of type int
x = 4.0        # x is of type float
x = True       # x is of type bool
x = "Pesho"    # x is now of type str

x = str(3)     # x will be “3”
y = int(3)     # y will be 3
z = float(3)   # z will be 3.0
f = bool(0)    # z will be False
e = bool(1)    # z will be True

longer_variable_name = 42

a = 4
A = "Pesho"
# A will not overwrite a
```

Standard input, output and comments

```
# This is a comment
x = 4  # This is a comment
# print("Hello, World!")
# print("Bye World...")

username = input("Enter username:")
print("Username is: " + username)

number = int(input("Enter an integer:"))
number = float(input("Enter a decimal:"))
```

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OPERATORS

Arithmetic Operators

Operator		Example
+	Addition	x+y
−	Subtraction	x-y
*	Multiplication	x*y
/	Division	x/y
%	Modulus	x%y

Assignment Operators

	Example	Same as
=	x = 3	x = 3
+=	x += 3	x = x + 3
-=	x -= 3	x = x - 3
*=	x *= 3	x = x * 3
/=	x /= 3	x = x / 3
%=	x %= 3	x = x % 3

Comparison Operators

	Name	Example
==	Equal	x == y
!=	Not Equal	x != y
<	Less than	x < y
<=	Less than or equal to	x <= y
>	Greater than	x > y
>=	Greater than or equal to	x >= y

Logical Operators

	Name	Example
and	Returns True if both statements are true	x < 5 and x < 10
or	Returns True if one of the statements is true	x < 5 or x > 10
not	Reverse the result, returns False if the result is true	not(x > 5 and x < 10)

Operators

```
a = 200
b = 33
if b > a:
  print("b is greater than a")
elif a == b:
  print("a and b are equal")
else:
  print("a is greater than b")


if a < 300 and b < 300:
  print("a and b are less than 300")
```


EXERCISE
You can find them in the github repository
https://github.com/genchev99/ia-lectures/lecture_02

THANKS !

CREDITS: This presentation template was created by Slidesgo, incluiding icons by Flaticon, and infographics & images by Freepik.