

Python Programming Course

Introduction to Python Programming

Python is a versatile and beginner-friendly programming language used for many applications such as web development, data science, automation, and more.

Variables and Data Types

Variables are containers for storing data values.

Example:

```
age = 20
name = "Yeabsira"
is_student = True
```

Control Flow

Control how the program executes using conditions and loops.

Example:

```
if age >= 18:
    print("Adult")
else:
    print("Minor")
```

```
for i in range(5):
    print(i)
```

Functions

Functions let you organize reusable blocks of code.

Example:

```
def greet(name):
    print("Hello, " + name + "!")
```

```
greet("Yeabsira")
```

Basic Data Structures

Lists, tuples, dictionaries, and sets store collections of data.

Example:

```
fruits = ["apple", "banana", "cherry"]  
person = {"name": "Yeabsira", "age": 20}
```

File Handling

Open, read, write files to save or load data.

Example:

```
with open("file.txt", "w") as f:  
    f.write("Hello World")
```

Modules and Libraries

Use existing code by importing modules like math, os, sys, and third-party libraries.

Practice Exercises

- Write a program that adds two numbers.
- Create a function that returns the square of a number.
- Loop from 10 to 1 and print each number.
- Read and write to a file.