➢ What if we have to store some data in our program?

Variables:

● A **variable** is like a **container (box)** that stores data.
● We give it a **name** and put some **value** inside it.

Rules for Variables:

✓ Must start with a **letter** or **underscore** (_), no other special characters.
✓ Cannot start with a number.
✓ Can contain letters, numbers, underscore.
✓ **Case sensitive** → Name and name are different.

Data Types:

Python automatically detects the type of data stored in a variable.

1. **String (str)** → text, inside quotes " " or ' '
2. **Integer (int)** → whole numbers
3. **Float** → decimal numbers
4. **Boolean (bool)** → True / False
5. **None** → represents "nothing"

✧ Use type() function to check the type of any data.

Importance:

● Variables store information → we can reuse it anywhere in the program.
● Data types define **what kind of data** we are working with (numbers, text, true/false).

Exercise:

Create 5 variables: name, age, height, is_student, city.

Print them all with their **data type** using type().