CODE CRAFT.PY

PYTHON NOTES

PYTHON VARIABLE DATA TYPES

DATA TYPES:

1. What is a Data Type?
A **data type** tells Python what kind of **value** a variable is storing.
Python automatically identifies the data type when you assign a value (dynamic typing).

DATA TYPES

Data Type	Description	Example
int	Integer numbers (whole numbers)	`age = 20`
float	Decimal numbers (floating-point)	`price = 99.99`
str	String of characters (text)	`name = "Codecraft"`
bool	Boolean (True or False)	`is_student = True`
list	Ordered collection of items	`fruits = ["apple","mango"]`
tuple	Immutable ordered collection of items	`coords = (10, 20)`
dict	Key-value pairs	`person = {"name":"codecraft","age":20}`
set	Unordered collection of unique items	`colors = {"red","blue"}`

VARIABLE

1. What is a Variable?

A **variable** is a **container or box** that stores data in a program.

Variables can store **numbers, text (strings), or other types of data**.

The **value inside a variable can change** during program execution.

EXAMPLE:

```
name = “LIKE"   # 'name' stores a string
age = 20        # 'age' stores an integer
```

IDENTIFIERS :

- **1. What is an Identifier?**
- An **identifier** is the **name given to a variable, function, class, or object** in Python.
- It's how Python refers to a variable or object internally.

IDENTIFIERS RULES:

- Must start with a **letter (a–z, A–Z) or underscore (_)**.
- Can contain **letters, digits (0–9), and underscores (_)** only.
- **Case-sensitive** – age and Age are different identifiers.
- **Cannot use Python keywords** (like if, for, while, def, etc.).
- **No spaces** are allowed in the identifier