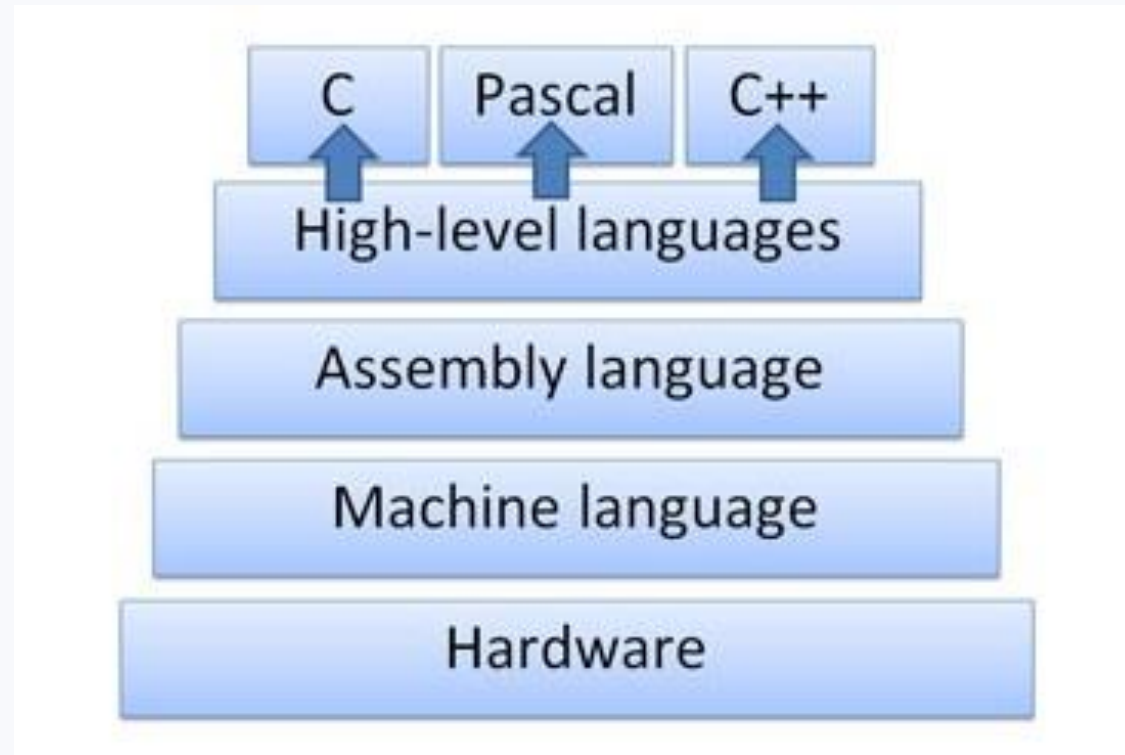# *Hands-On Prerequisite Python in AI*

Object Oriented Programming (OOP)
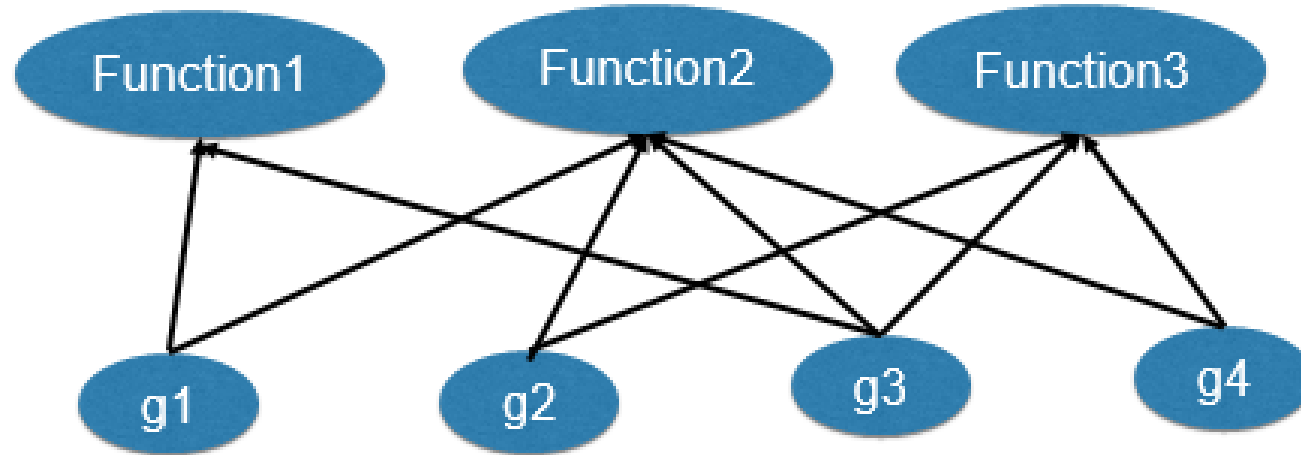
Session 13

2023 29 April

Introduction

Functional Programming

OOP

- **Object-oriented programming is a programming method derived from real-world thinking.**
- **We have object and class.**
- **Every object has properties and behavior.**

Example:
Objects in the library problem: a book, a member, a shelf and...
Objects in the bank problem: an employee, a customer, an account and...

OOP

- **Object:** Entities that exist in the problem space.
- **Example:**
- **Bank: employee, customer, account, etc.**

- **Attribute:** Features of an Object
- **Behavior:** Action and behavior that an Object can have
- **Class:** A group of objects that have similar characteristics and behavior.

- Each class defines behaviors and characteristics that an Object of this class has these characteristics and behaviors.
- **Example:**
- **Attribute: name, surname, phone number, account type**
- **Behaviors: opening an account, transferring money to the account, deleting the account**

OOP

- **Advantages of Object Oriented :**

    - **Simplifying big issues**
    - **Easy development of applications**
    - **The ability to divide the program into smaller but independent programs**
    - **No need to write duplicate code and features that have already been implemented**
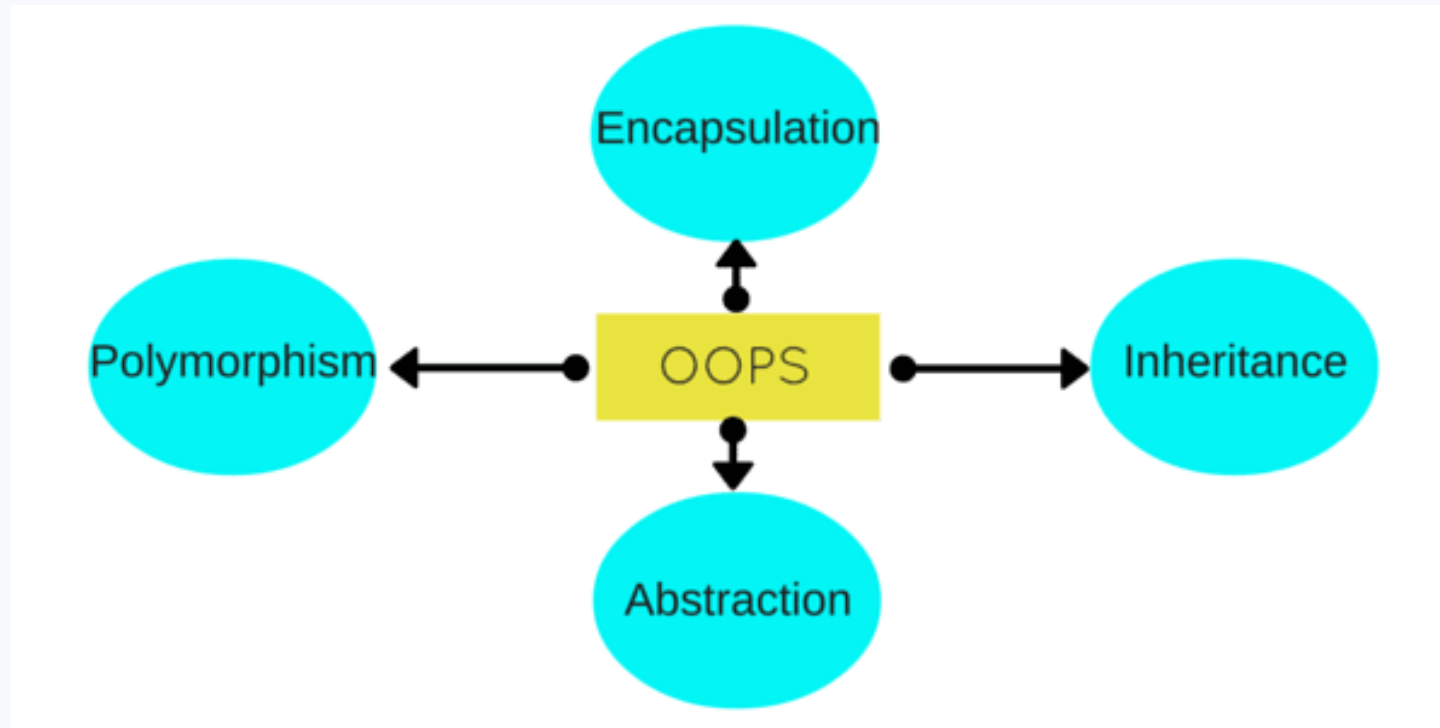
Example

OOP

Thanks

Good Luck!