Python Notes

Polymorphism

* Polymorphism means “many forms”. In inheritance, it allows different child classes to have different behaviors while using the same method name as the parent class.
  + In simpler words:
    - A parent class has a method.
    - Different child classes override that method with their own behavior.
    - The same method name behaves differently based on which class is using it.
* Example –
  + Base Class (AIModel)
    - Has a method predict\_probability() that calculates a basic probability score.
  + Child Class (WeatherAI)
    - Uses text-based probability (How likely is this sentence real or fake?)
  + Child Class (WeatherAi)
    - Uses weather-based probability (How likely will it rain tomorrow?)
* Even though both use predict\_probability, the logic inside is different based on the AI type.