**FILE HANDLING:**

**Open** a file, **Read** from a file, **Write** to a file, **Close** a file, add more pages **(append).**

Example:  
Saving your Uber trip data to a file.

**EXCEPTION HANDLING**

Handle errors that happen during execution.

Example:  
If Uber app can’t find driver, it shows “No driver available” insteadAlways do something

Block that runs whether error occurs or not.

**Example:**  
Uber app always closes network connection after trying to book ride (whether successful or not).

**OOP (Object Oriented Programming) and its Types**

**Class & Object**

**Example:**  
Uber car system:

| **Class** | **Object** |
| --- | --- |
| Car | Naveen’s Toyota |
| UberTrip | Naveen's actual trip |
| User | Naveen |

**Types (Pillars of OOP)**

| **Type** | **Meaning** | **Real Life Example** |
| --- | --- | --- |
| **Encapsulation** | Hide internal data | Uber hides driver's phone number |
| **Inheritance** | One class inherits another | Uber Bike inherits features from Uber Ride |
| **Polymorphism** | Same function different output | start() works for Car and Bike |
| **Abstraction** | Hide complexity | User sees simple Uber app, not backend |

**CONSTRUCTOR (\_\_init\_\_)**

Special method runs automatically when object created.

Example:  
When Uber trip starts, trip data is auto-filled.

**DESTRUCTOR (\_\_del\_\_)**  
Called when object is deleted or program ends.

**Example:**  
When Uber trip ends, trip data is cleared from memory.