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1. Object Oriented Programing (OOP) is a way of coding where we use objects. These objects can store data and functions. OOP follows some rules like abstraction, inharitance and polymorphsm. It helps in writing reusable and clean code.
On the other hand, procedural programming is more like writing step by step instructions. It uses functions but doesn't have objects. OOP is more modular and easier to manage big projects than procedural.

2. Normalization is the method of arranging data in database to remove repetition and ensure accuracy. It means breaking big tables into smaller ones and connecting them using keys.
It helps to avoid duplication and makes updates easy. There are different levels like 1st normal form, 2nd, 3rd and so on. By

normalising, we reduce data problems and make database more efficient.

3. Deadlock is when processes in OS get stuck because each one is waiting for something the other has. They can't continue, and system may freeze.
There are four things that must happen for deadlock: mutual extusion, hold and wait, no preemption, and circular wait. To prevent deadlock, we can make sure one or more of these don't happen, like using resource ordering or not letting processes hold resources while waiting.

4. Compiler converts all the code into machine language before running it. It creates a exe file. It runs faster but all errors come after compiling.
Interpreter does the code line by line. It is slow but helps to find mistakes easily because it stops where the error is.
Languages like C are compiled and Python is an interpreted language.