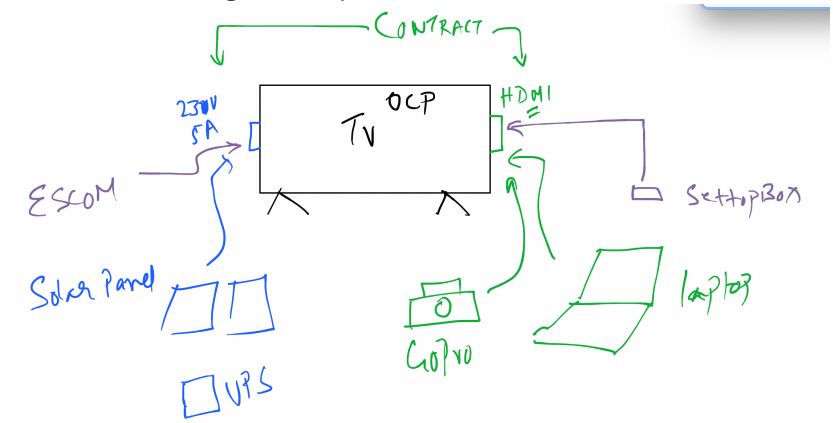
SOLID Design Principle

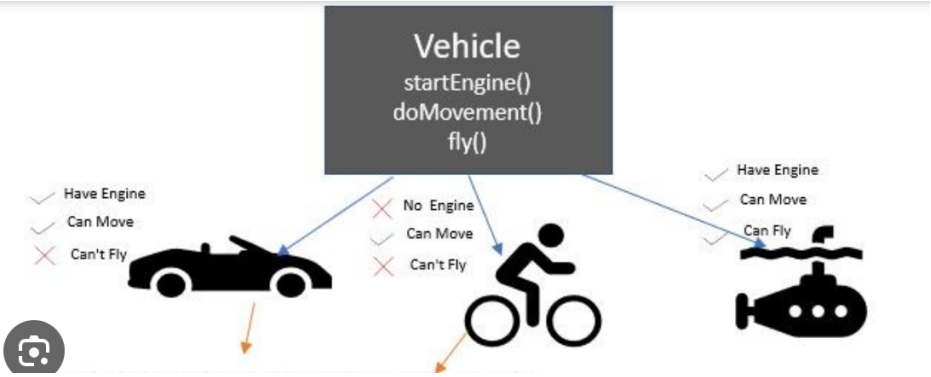
Single Responsibility

Swiss Army Knife is a great tool which does most of the things. Do we use it in day-to-day life? No. we use specialized tools in day-to-day life like Scissors, Butter knife, ...

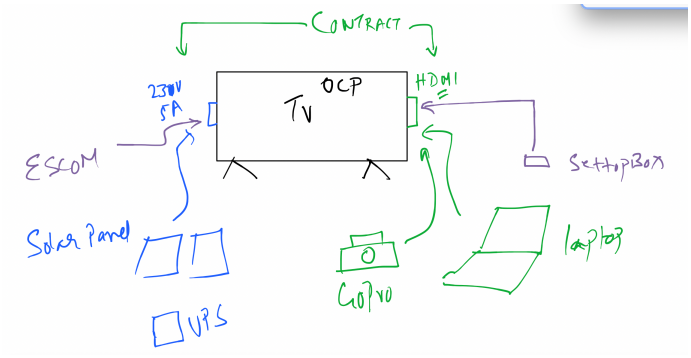
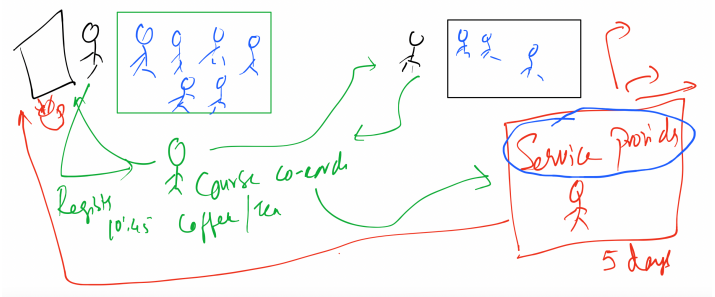
Open Close Principle:
Closed for Change and open for extension



Liskov Substitution Principle



Interface Segregation
Tv takes different message from different objects
Human uses Remote, Set-top box uses HDMI interface. Networking uses LAN port...
Tv has multiple capability.

Benefit: abstraction. I as human need to know only about remote usage without worrying about how/what HDMI does.
Set-top box needs to know only about HDMI without worrying about on/off, channel change ..

Dependency Injection
Tv needs HDMI and Power, they are injected to Tv, Tv doesn't go in search of it.