1-Does your class diagram respect or violate SOLID principles? Justify your answer?

Our class diagram respects SOLID principles…..

-SRP (Single responsibility principle) :

All classes have only one responsibility …there is no multi responsibility ..every entity has its control class that responsible for its functionality Ex :

Garage and GarageControl.

-OCP (Open/closed principle)

Our classes open for extension closed for modification such that ..if we want to add some extra features or update algorithms technique we don’t have to modify in implemented class …we can extend it.

Ex :

SearchControl and FirstFit and BestFit.

-ISP (Interface segregation principle)

Any functionality that repeated in classes we have abstracted it in interface to avoid code redundancy…also to follow (DRY : Don’t repeat yourself) … and no code should be forced to depend on methods it does not use…

Ex:

SearchControl and FirstFit.

2-Does your class diagram contain any design pattern(s), if yes name it and list the

names of the classes involved in such pattern(s).

|  |  |
| --- | --- |
| Class Name | Design pattern |
| Report | Singleton |
| Garage | Singleton |
| SearchControl ,BestFit,FirstFit | Strategy |