- 1. Principle Violated: Interface Segregation Principle
- 2. Reason: Interface IInsect contains 5 methods. By implementing this interface, class FlyingInsect had to implement the method Swim() which it doesn't need. Similarly, class AquaticInsect had to implement the method Fly() even though it is not required for that class. To fix this violation, I have created three specific interfaces instead of one generic interface. Interface IFlyInsect contains methods which are specific to flying insects. Interface IAquaInsect contains methods which are specific to aquatic insects. Interface IInsect contains methods which are common to both types. Class FlyingInsect implements interfaces IFlyInsect and IInsect while class AquaticInsect implements interfaces IAquaInsect and IInsect.
- 3. The following code fixes the violation of Interface Segregation Principle.

IFlyInsect.java

IAquaInsect.java

IInsect.java

FlyingInsect.java

AquaticInsect.java