```java
// Rudraksh Kavishwar
// 23070126511
// AIML B-3


public class Main {
    public static void main(String[] args){
        RedHeadDuck redHeadDuck=new RedHeadDuck();
        redHeadDuck.display();
        redHeadDuck.performFly();
        redHeadDuck.performQuack();
        redHeadDuck.performSwim();

        RubberDuck rb = new RubberDuck();
        rb.display();
        rb.performFly();
        rb.performQuack();
        rb.performSwim();

        MalardDuck md = new MalardDuck();
        md.display();
        md.performFly();
        md.performQuack();
        md.performSwim();
    }
}
```

```java
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        abstract public class Duck {
        FlyBehaviour flyBehaviour;
        QuackBehaviour quackBehaviour;
        SwimBehaviour swimBehaviour;

                public void setFlyBehaviour(FlyBehaviour fb) {
                flyBehaviour = fb;
                }

                public void setQuackBehaviour(QuackBehaviour qb) {
                quackBehaviour = qb;
                }

                public void setSwimBehaviour(SwimBehaviour sb) {
                swimBehaviour = sb;
                }

                abstract void display();
                public void performFly(){
                flyBehaviour.fly();
                }
                public void performQuack(){
                quackBehaviour.quack();
```

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                }
        public void performSwim(){
        swimBehaviour.swim();
                }
                }


        public class RedHeadDuck extends Duck{
        public RedHeadDuck(){
        quackBehaviour= new Quack();
        flyBehaviour= new FlyWithWings();
        swimBehaviour= new Swim();

                }
        void display(){
        System.out.println("This is RedHead Duck......");

        }
        }
```

```java
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public interface QuackBehaviour {
    public void quack();


}
```

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public class MalardDuck extends Duck{
public MalardDuck(){
quackBehaviour=new Quack();
flyBehaviour=new FlyWithWings();
swimBehaviour= new Drown();

}
void display(){
System.out.println("This is MalardDuck Duck......");

}
}
```

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public interface SwimBehaviour {
public void swim();
}
```

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public class RubberDuck extends Duck{        public RubberDuck(){
        flyBehaviour= new FlyNoWay();
        quackBehaviour= new Squeak();
        swimBehaviour= new Float();

        }
        void display(){
        System.out.println("This is Rubber Duck....");
        }
        }
```

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public interface FlyBehaviour {

    public void fly();
    }

```

```java
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public class Squeak implements QuackBehaviour {
@Override
public void quack() {
System.out.println("Duck Only squeaks");
}
}
```

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public class Swim implements SwimBehaviour{
        @Override public void
        swim() {
                        System.out.println("This Duck can swim.");
        }



}
```

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public class Quack implements QuackBehaviour {
public void quack(){
System.out.println("Duck Quacks");
}
}
```

```java
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public class FlyWithWings implements FlyBehaviour{
        @Override public void fly()
        {
                System.out.println("Flying with wings"); }


}
```

```java
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public class FlyNoWay implements FlyBehaviour{
public void fly(){
System.out.println("Cannot Fly....");
}
}
```

```java
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// 23070126511


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public class Drown implements SwimBehaviour{
        @Override public void
        swim() {
                    System.out.println("This Duck cannot swim");
        }

}
```

```java
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public class Float implements SwimBehaviour{
@Override
public void swim() {
System.out.println("This duck can float.");
}
}
```

```
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Microsoft Windows [Version 10.0.22621.3155]
(c) Microsoft Corporation. All rights reserved.

D:\JAVA\PROGRAMS\Duck>javac Main.java

D:\JAVA\PROGRAMS\Duck>java Main
This is RedHead Duck......
Flying with wings
Duck Quacks
This Duck can swim.
This is Rubber Duck....
Cannot Fly....
Duck Only squeaks
This duck can float.
This is MalardDuck Duck......
Flying with wings
Duck Quacks
This Duck cannot swim

D:\JAVA\PROGRAMS\Duck>
```