Factory Method Pattern

interface Vehicle {  
 void start();  
}  
  
class Car implements Vehicle {  
 public void start() {  
 System.out.println("Car has started.");  
 }  
}  
  
class Bike implements Vehicle {  
 public void start() {  
 System.out.println("Bike has started.");  
 }  
}  
  
abstract class VehicleFactory {  
 public abstract Vehicle createVehicle();  
}  
  
class CarFactory extends VehicleFactory {  
 public Vehicle createVehicle() {  
 return new Car();  
 }  
}  
  
class BikeFactory extends VehicleFactory {  
 public Vehicle createVehicle() {  
 return new Bike();  
 }  
}  
  
public class FactoryMethod {  
 public static void main(String[] args) {  
 VehicleFactory carFactory = new CarFactory();  
 Vehicle car = carFactory.createVehicle();  
 car.start();  
  
 VehicleFactory bikeFactory = new BikeFactory();  
 Vehicle bike = bikeFactory.createVehicle();  
 bike.start();  
 }  
}