```java
package transport;

public abstract class Vehicle {
	protected String id;
	public Vehicle(String id) {
		this.id=id;
		 System.out.println("Vehicle() constructor called");
	}
	public abstract void deliver(String item,String place);
}
package transport;

public class Bicycle extends Vehicle {

	public Bicycle(String id) {
		super(id);
		// TODO Auto-generated constructor stub
		System.out.println("Bicycle() constructor called");
	}

	@Override
	public void deliver(String item, String place) {
		// TODO Auto-generated method stub
		System.out.println("Delivering"+item+"to"+place+" by Bicycle");


	}
package transport;

public class Ebike extends Bicycle {
private int battery;
	public Ebike(String id,int battery) {
		super(id);
		// TODO Auto-generated constructor stub
		this.battery=battery;
		 System.out.println("EBike() constructor called");
	}
	@Override
	public void deliver(String item,String place)
	{
	System.out.println("checking battery:"+battery+"%");
	super.deliver(item,place);
	}
}
package transport;

public interface IPayable {
	double cost(double distanceKm);
}
package transport;

public final class SecurityRules {
	private SecurityRules() {
	}
	public static boolean canFly(String place) {
		return!place.equals("exam cell");


	}

}
package transport;
```

```
public class Drone extends Vehicle  implements IPayable{

	public Drone(String id) {
		super(id);
		 System.out.println("Drone() constructor called");
		// TODO Auto-generated constructor stub
	}

	@Override
	public void deliver(String item, String place) {
		// TODO Auto-generated method stub
		if(!SecurityRules.canFly(place)){
			System.out.println("Delivery to"+place+"is blocked by security:");
			return ;

		}
		System.out.println("Delivering " + " to "+ place  + " by Drone.");
	}
	 @Override
public double cost(double distanceKm) {
		 return 20*distanceKm;
	 }
}
package transport;

public class Main {

	public static void main(String[] args) {
		// TODO Auto-generated method stub
		Ebike e=new Ebike("EB-101",50);
		e.deliver("sandwich","Library");
		  Drone d = new Drone("DR-1");
	    d.deliver("Notes", "ExamCell");
	    d.deliver("USB", "CSE Block" );
	    double bill=d.cost(5);
	    System.out.println("Drone delivary cost:Rs"+bill);

	}

}
```