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```
%%writefile Main.java
// Modern logging interface
interface Logger {
    void log(String level, String message);
}

// Old legacy logger (only has logMessage)
class LegacyLogger {
    public void logMessage(String message) {
        System.out.println("Legacy log: " + message);
    }
}


// Adapter that makes LegacyLogger compatible with Logger
class LegacyLoggerAdapter implements Logger {
    LegacyLogger legacyLogger;

    LegacyLoggerAdapter(LegacyLogger legacyLogger) {
        this.legacyLogger = legacyLogger;
    }


    public void log(String level, String message) {
        legacyLogger.logMessage("[ " + level + " ] " + message);
    }
}

// Test
public class Main {
    public static void main(String[] args) {
        LegacyLogger oldLogger = new LegacyLogger();
        Logger logger = new LegacyLoggerAdapter(oldLogger);

        logger.log("INFO", "App started");
        logger.log("ERROR", "Something went wrong");
    }
}
```

 Writing Main.java

```
%%bash
javac Main.java
java Main
```

 Legacy log: [INFO] App started
Legacy log: [ERROR] Something went wrong

You need to adapt a MicroUSB charger (Adaptee) to work with a USBTypeC device (Target). How would you model this with the Adapter pattern?

```
%%writefile Main.java

// Target interface
interface USBTypeC {
    void connectWithUSBTypeC();
}

// Adaptee
class MicroUSB {
    public void connectWithMicroUSB() {
        System.out.println("Connected with MicroUSB.");
    }
}

// Adapter
class MicroUSBToUSBTypeCAdapter implements USBTypeC {
    private MicroUSB microUSB;

    public MicroUSBToUSBTypeCAdapter(MicroUSB microUSB) {
```

```

        this.microUSB = microUSB;
    }

    @Override
    public void connectWithUSBTypeC() {
        System.out.println("Adapter converts Type-C to MicroUSB...");
        microUSB.connectWithMicroUSB();
    }
}

// Device that uses USB Type-C
class Device {
    private USBTypeC port;


    public Device(USBTypeC port) {
        this.port = port;
    }

    public void charge() {
        port.connectWithUSBTypeC();
        System.out.println("Device is charging...");
    }
}

// Usage
public class Main {
    public static void main(String[] args) {
        MicroUSB microUSBCharger = new MicroUSB();
        USBTypeC adapter = new MicroUSBToUSBTypeCAdapter(microUSBCharger);
        Device device = new Device(adapter);

        device.charge();
    }
}


```

 Overwriting Main.java

```

!javac Main.java
!java Main

```

 Adapter converts Type-C to MicroUSB...
 Connected with MicroUSB.
 Device is charging...