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// Subsystem classes
class Amplifier {
    public void on() { System.out.println("Amplifier on"); }
    public void off() { System.out.println("Amplifier off"); }
    public void setVolume(int level) { System.out.println("Setting volume to " + level); }
}

class Tuner {
    public void on() { System.out.println("Tuner on"); }
    public void off() { System.out.println("Tuner off"); }
}

class DVDPlayer {
    public void on() { System.out.println("DVD Player on"); }
    public void off() { System.out.println("DVD Player off"); }
    public void play(String movie) { System.out.println("Playing " + movie); }
}

class Projector {
    public void on() { System.out.println("Projector on"); }
    public void off() { System.out.println("Projector off"); }
}

class TheaterLights {
    public void dim(int level) { System.out.println("Dimming lights to " + level + "%"); }
}

class Screen {
    public void down() { System.out.println("Screen down"); }
    public void up() { System.out.println("Screen up"); }
}

class PopcornPopper {
    public void on() { System.out.println("Popcorn Popper on"); }
    public void pop() { System.out.println("Popping popcorn"); }
}

// Facade class
class HomeTheaterFacade {
    private Amplifier amp;
    private Tuner tuner;
    private DVDPlayer dvd;
    private Projector projector;
    private TheaterLights lights;
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private Screen screen;
private PopcornPopper popper;

public HomeTheaterFacade(Amplifier amp, Tuner tuner, DVDPlayer dvd, Projector projector,
                        TheaterLights lights, Screen screen, PopcornPopper popper) {
    this.amp = amp;
    this.tuner = tuner;
    this.dvd = dvd;
    this.projector = projector;
    this.lights = lights;
    this.screen = screen;
    this.popper = popper;
}

public void watchMovie(String movie) {
    System.out.println("Get ready to watch a movie...");
    popper.on();
    popper.pop();
    lights.dim(10);
    screen.down();
    projector.on();
    amp.on();
    amp.setVolume(5);
    dvd.on();
    dvd.play(movie);
}

public void endMovie() {
    System.out.println("Shutting movie theater down...");
    popper.off();
    lights.dim(100);
    screen.up();
    projector.off();
    amp.off();
    dvd.off();
}

}

// Client code to test Facade Pattern
public class HomeTheaterTestDrive {
    public static void main(String[] args) {
        Amplifier amp = new Amplifier();
        Tuner tuner = new Tuner();
        DVDPlayer dvd = new DVDPlayer();
    }
}

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Projector projector = new Projector();
TheaterLights lights = new TheaterLights();
Screen screen = new Screen();
PopcornPopper popper = new PopcornPopper();

HomeTheaterFacade homeTheater = new HomeTheaterFacade(amp, tuner, dvd, projector,
lights, screen, popper);

    homeTheater.watchMovie("Inception");
    homeTheater.endMovie();
}
}
```