Experiment – 9

Aim – Façade design pattern (Structural pattern)

Concept -just provide a unified and simplified interface to a set of interfaces in a subsystem, therefore it hides the complexities of the subsystem from the client .Facade Pattern describes a higher-level interface that makes the sub-system easier to use.

Lighting.java

```
public class Lighting {
    public void romanticLight(){
        System.out.println("Make lights red to set romantic mood");
    }
    public void birthdayLight(){
        System.out.println("On the party lights ");
    }
}
```

Music.java

```
public class Music {
    public void romanticMusic(){
        System.out.println("Play romantic music to set the mood");
    }
    public void birthdayMusic(){
        System.out.println("Play party music");
    }
}
```

Food.java

```
public class Food {
    public void romanticFood(){
        System.out.println("Romantic food combo ordered");
    }
    public void birthdayFood(){
        System.out.println("Birthday party food combo ordered");
    }
}
```

RestaurantFacade.java

```
public class RestaurantFacade {

    Lighting lighting;
    Music music;
    Food food;

    public RestaurantFacade(Lighting lighting , Music music , Food food){
        this.lighting = lighting;
        this.music = music;
        this.food = food;
    }

    public void romanticDinner(){
        lighting.romanticLight();
        music.romanticMusic();
        food.romanticFood();
    }

    public void birthdayDinner(){
        lighting.birthdayLight();
        music.birthdayMusic();
        food.birthdayFood();
    }
}
```

Client.java

```
public class Client {
    public static void main(String[] args) {

        Lighting obj1 = new Lighting();
        Music obj2 = new Music();
        Food obj3 = new Food();

        RestaurantFacade facade = new RestaurantFacade(obj1,obj2,obj3);

        facade.birthdayDinner();


System.out.println("==============================================");

        facade.romanticDinner();

    }
}
```

Output : -

```
"C:\Program Files\Java\jdk-17.0.2\bin\java.exe" "-javaagent:C:\Program Files\JetBrains
On the party lights
Play party music
Birthday party food combo ordered
==========================================
Make lights red to set romantic mood
Play romantic music to set the mood
Romantic food combo ordered
```