# Example 1 Façade Design Pattern

**namespace DesignPattern.Facade**

{

**class** **SubsystemA**

{

**public** string OperationA1()

{

**return** "Subsystem A, Method A1\n";

}

**public** string OperationA2()

{

**return** "Subsystem A, Method A2\n";

}

}

**class** **SubsystemB**

{

**public** string OperationB1()

{

**return** "Subsystem B, Method B1\n";

}

**public** string OperationB2()

{

**return** "Subsystem B, Method B2\n";

}

}

**class** **SubsystemC**

{

**public** string OperationC1()

{

**return** "Subsystem C, Method C1\n";

}

**public** string OperationC2()

{

**return** "Subsystem C, Method C2\n";

}

}

**public** **class** **Facade**

{

**private** **readonly** SubsystemA a = **new** SubsystemA();

**private** **readonly** SubsystemB b = **new** SubsystemB();

**private** **readonly** SubsystemC c = **new** SubsystemC();

**public** **void** Operation1()

{

Console.WriteLine("Operation 1\n" +

a.OperationA1() +

b.OperationB1() +

c.OperationC1());

}

**public** **void** Operation2()

{

Console.WriteLine("Operation 2\n" +

a.OperationA2() +

b.OperationB2() +

c.OperationC2());

}

}

}

# Example 2 Façade Design Pattern

**namespace** **DesignPattern.Facade.Sample**

{

*// The 'Subsystem ClassA' class*

**class** **CarModel**

{

**public** **void** SetModel()

{

Console.WriteLine(" CarModel - SetModel");

}

}

*/// <summary>*

*/// The 'Subsystem ClassB' class*

*/// </summary>*

**class** **CarEngine**

{

**public** **void** SetEngine()

{

Console.WriteLine(" CarEngine - SetEngine");

}

}

*// The 'Subsystem ClassC' class*

**class** **CarBody**

{

**public** **void** SetBody()

{

Console.WriteLine(" CarBody - SetBody");

}

}

*// The 'Subsystem ClassD' class*

**class** **CarAccessories**

{

**public** **void** SetAccessories()

{

Console.WriteLine(" CarAccessories - SetAccessories");

}

}

*// The 'Facade' class*

**public** **class** **CarFacade**

{

**private** **readonly** CarAccessories accessories;

**private** **readonly** CarBody body;

**private** **readonly** CarEngine engine;

**private** **readonly** CarModel model;

**public** CarFacade()

{

accessories = **new** CarAccessories();

body = **new** CarBody();

engine = **new** CarEngine();

model = **new** CarModel();

}

**public** **void** CreateCompleteCar()

{

Console.WriteLine("\*\*\*\*\*\*\*\* Creating a Car \*\*\*\*\*\*\*\*\*\*");

model.SetModel();

engine.SetEngine();

body.SetBody();

accessories.SetAccessories();

Console.WriteLine("\*\*\*\*\*\*\*\* Car creation is completed. \*\*\*\*\*\*\*\*\*\*");

}

}

*// Facade pattern demo*

**class** **Program**

{

**static** **void** Main(string[] args)

{

var facade = **new** CarFacade();

facade.CreateCompleteCar();

Console.ReadKey();

}

}

}

# Example 3 Façade Design Pattern

**class** **CPU** {

**public** void freeze() { ... }

**public** void jump(long position) { ... }

**public** void execute() { ... }

}

**class** **HardDrive** {

**public** byte[] read(long lba, int size) { ... }

}

**class** **Memory** {

**public** void load(long position, byte[] data) { ... }

}

*/\* Facade \*/*

**class** **ComputerFacade** {

**private** CPU processor;

**private** Memory ram;

**private** HardDrive hd;

**public** ComputerFacade() {

**this**.processor = **new** CPU();

**this**.ram = **new** Memory();

**this**.hd = **new** HardDrive();

}

**public** void start() {

processor.freeze();

ram.load(BOOT\_ADDRESS, hd.read(BOOT\_SECTOR, SECTOR\_SIZE));

processor.jump(BOOT\_ADDRESS);

processor.execute();

}

}

*/\* Client \*/*

**class** **You** {

**public** **static** void main(String[] args) {

ComputerFacade computer = **new** ComputerFacade();

computer.start();

}