**David Chapman**

**CSCI 5335 Assignment 8: Façade Pattern**

**3/8/2015**

**CODE:**

**/\*Created by: David Chapman**

**\* CSCI 5335 Assignment 8: Facade Pattern**

**\* 3/7/2015**

**\* Revisions:**

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**\* <Summary>**

**\* Implementation of facade pattern design using remote car starter.**

**\* The StartCarFacade contains methods to control AC, stereo, windows,**

**\* and sun roof depending on the temperture outside.**

**\* <Summary>**

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**\* \*/**

**using System;**

**using System.Collections.Generic;**

**using System.Linq;**

**using System.Text;**

**using System.Threading.Tasks;**

**namespace DChapman\_CSCI5335\_Assignment8**

**{**

**class Program**

**{**

**//The facade class**

**public class StartCarFacade**

**{**

**//Composed of subsystems**

**public AC ac = new AC();**

**public Stereo stereo = new Stereo();**

**public Windows windows = new Windows();**

**public SunRoof sunRoof = new SunRoof();**

**public StartCarFacade()**

**{**

**}**

**//Warm weather controls:**

**public void StartCarSummer()**

**{**

**Console.WriteLine("Cranking Car...");**

**ac.CoolOn();**

**stereo.On();**

**windows.Down();**

**sunRoof.Open();**

**}**

**public void StopCarSummer()**

**{**

**Console.WriteLine("Turning Car off...");**

**ac.Off();**

**stereo.Off();**

**windows.Crack();**

**sunRoof.Close();**

**}**

**//Cold weather controls:**

**public void StartCarWinter()**

**{**

**Console.WriteLine("Cranking Car...");**

**ac.HeatOn();**

**ac.Defrost();**

**stereo.On();**

**}**

**public void StopCarWinter()**

**{**

**Console.WriteLine("Turning Car off...");**

**ac.Off();**

**stereo.Off();**

**windows.Up();**

**sunRoof.Close();**

**}**

**}**

**//Air Conditioner class**

**public class AC**

**{**

**public AC() { }**

**public void HeatOn()**

**{**

**Console.WriteLine("Heat on.");**

**}**

**public void Defrost()**

**{**

**Console.WriteLine("Defroster on.");**

**}**

**public void CoolOn()**

**{**

**Console.WriteLine("Cool air on.");**

**}**

**public void Off()**

**{**

**Console.WriteLine("AC off.");**

**}**

**}**

**//Stereo class**

**public class Stereo**

**{**

**public Stereo() { }**

**public void On()**

**{**

**Console.WriteLine("Stereo on.");**

**}**

**public void Off()**

**{**

**Console.WriteLine("Stereo off.");**

**}**

**}**

**//Windows class**

**public class Windows**

**{**

**public Windows() { }**

**public void Up()**

**{**

**Console.WriteLine("Windows up.");**

**}**

**public void Down()**

**{**

**Console.WriteLine("Windows down.");**

**}**

**public void Crack()**

**{**

**Console.WriteLine("Windows cracked.");**

**}**

**}**

**//Sun roof class**

**public class SunRoof**

**{**

**public SunRoof() { }**

**public void Open()**

**{**

**Console.WriteLine("Sunroof open.");**

**}**

**public void Close()**

**{**

**Console.WriteLine("Sunroof closed.");**

**}**

**}**

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

**{**

**Console.Title = "Assignment 8: Facade Pattern";**

**StartCarFacade starter = new StartCarFacade();**

**//Start car in warm weather:**

**Console.WriteLine("\*\*\*\*\*Warm Weather\*\*\*\*\*");**

**starter.StartCarSummer();**

**Console.WriteLine();**

**Console.ReadKey();**

**Console.WriteLine("\*\*\*\*\*Warm Weather\*\*\*\*\*");**

**starter.StopCarSummer();**

**Console.WriteLine();**

**Console.ReadKey();**

**//Starting car in cold weather:**

**Console.WriteLine("\*\*\*\*\*Cool Weather\*\*\*\*\*");**

**starter.StartCarWinter();**

**Console.WriteLine();**

**Console.ReadKey();**

**Console.WriteLine("\*\*\*\*\*Cool Weather\*\*\*\*\*");**

**starter.StopCarWinter();**

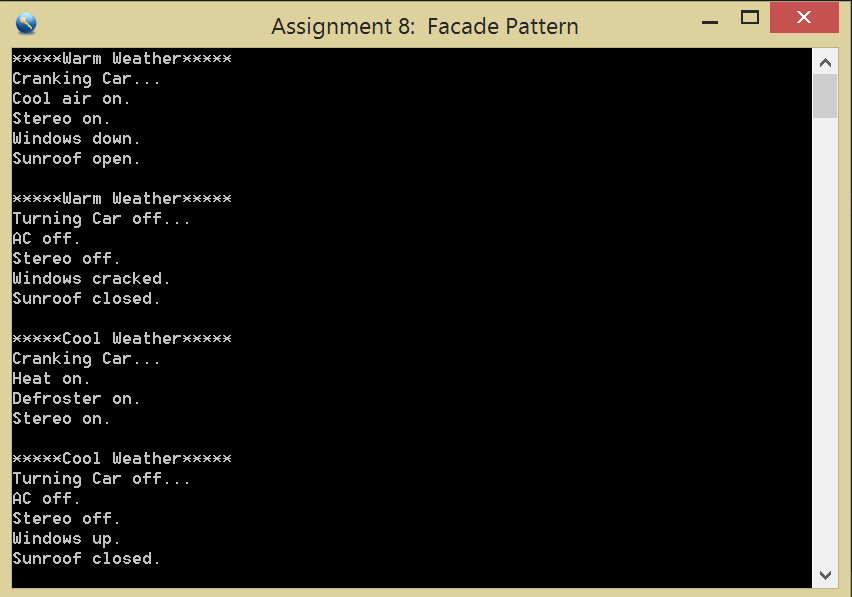
**Console.ReadKey();**

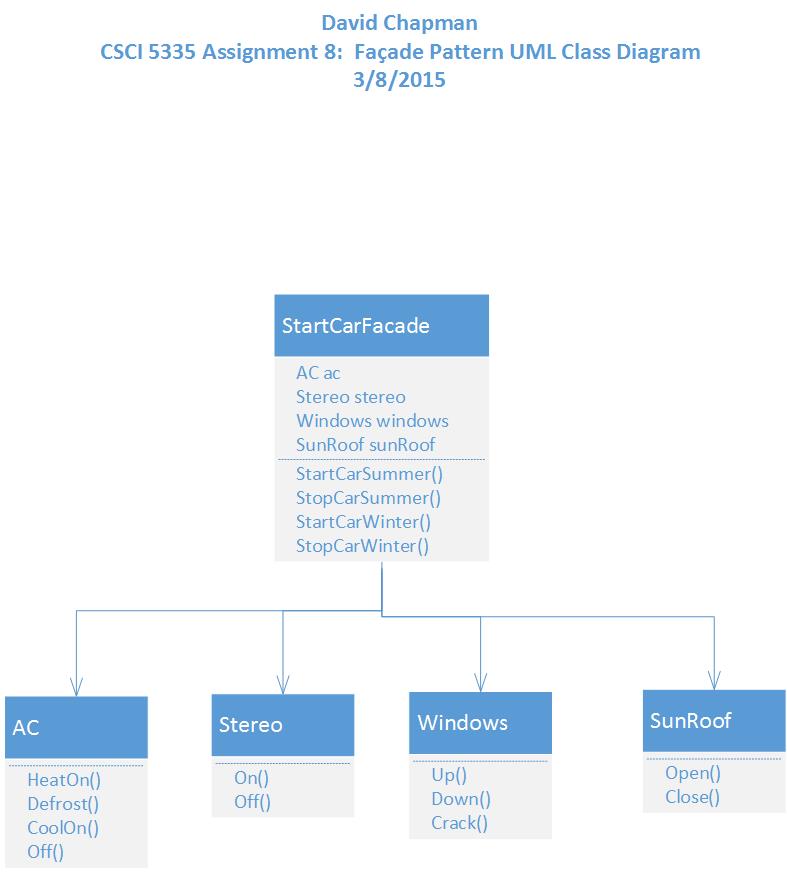
**}**

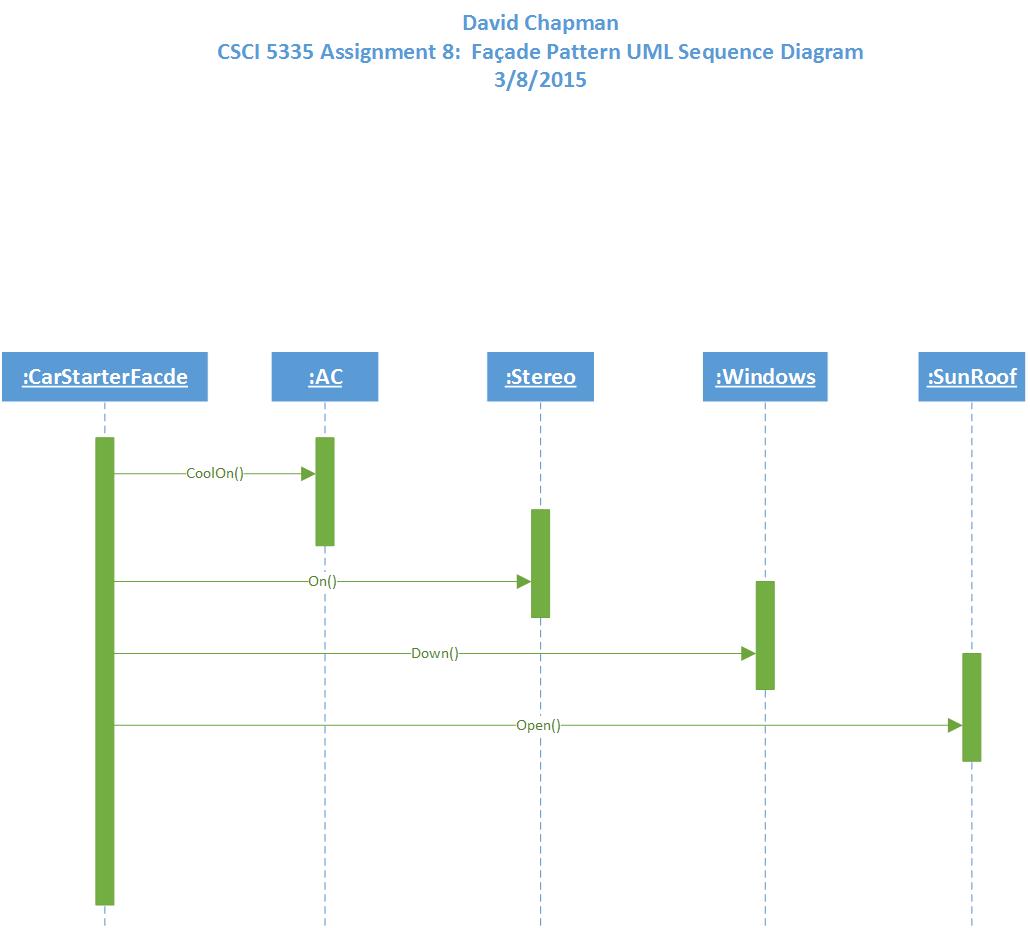
**}**

**}**

**SCREENSHOT:**



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