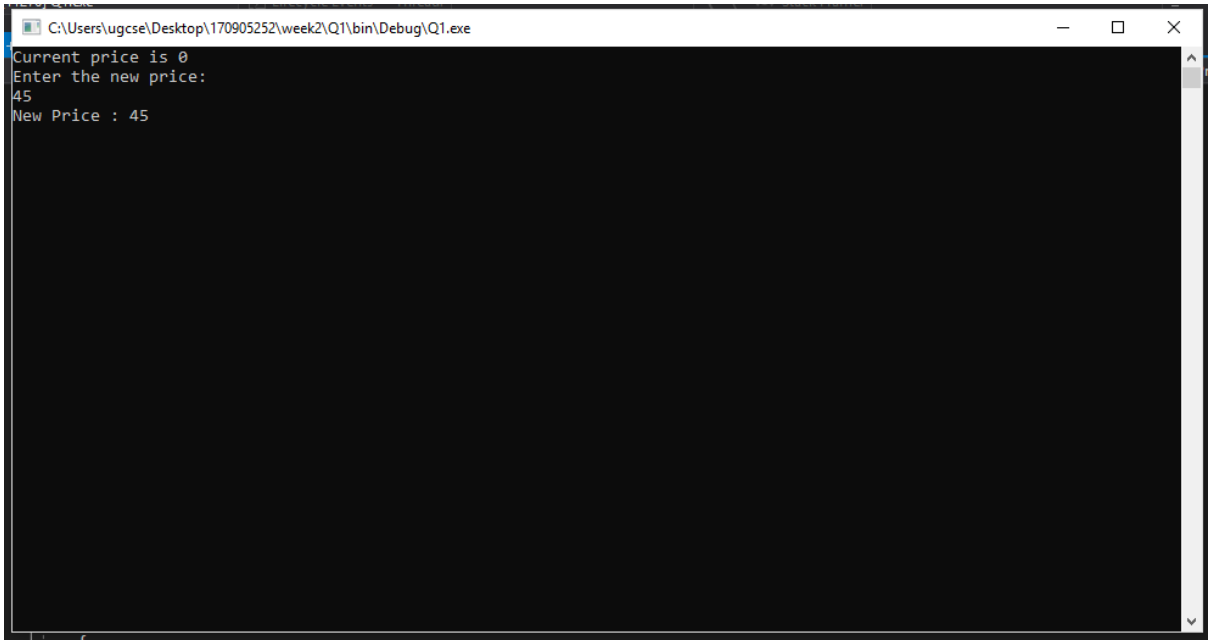
Q1: Program.cs

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace Q1
{
   class Program
   {
      static void Main(string[] args)
      {
         Item i = new Item();
         i.Price = 0;
         i.PriceChanged += ShowPriceChangedMessage;

         int new_price;

         Console.WriteLine("Current price is {0}\nEnter the new price:", i.Price);
         int.TryParse(Console.ReadLine(), out new_price);

         i.Price = new_price;

         Console.Read();
      }

      private static void ShowPriceChangedMessage(int v)
      {
         Console.WriteLine("New Price : " + v);
      }
```

```
    }

    class Item
    {
        private int price;
        private string name;
        public delegate void PriceChangedHandler(int v);
        public event PriceChangedHandler PriceChanged;
        public int Price
        {
            get
            {
                return price;
            }
            set
            {
                price = value;
                if (PriceChanged != null)
                {
                    PriceChanged(value);
                }

            }
        }
    }
}
```



Q2: Program.cs

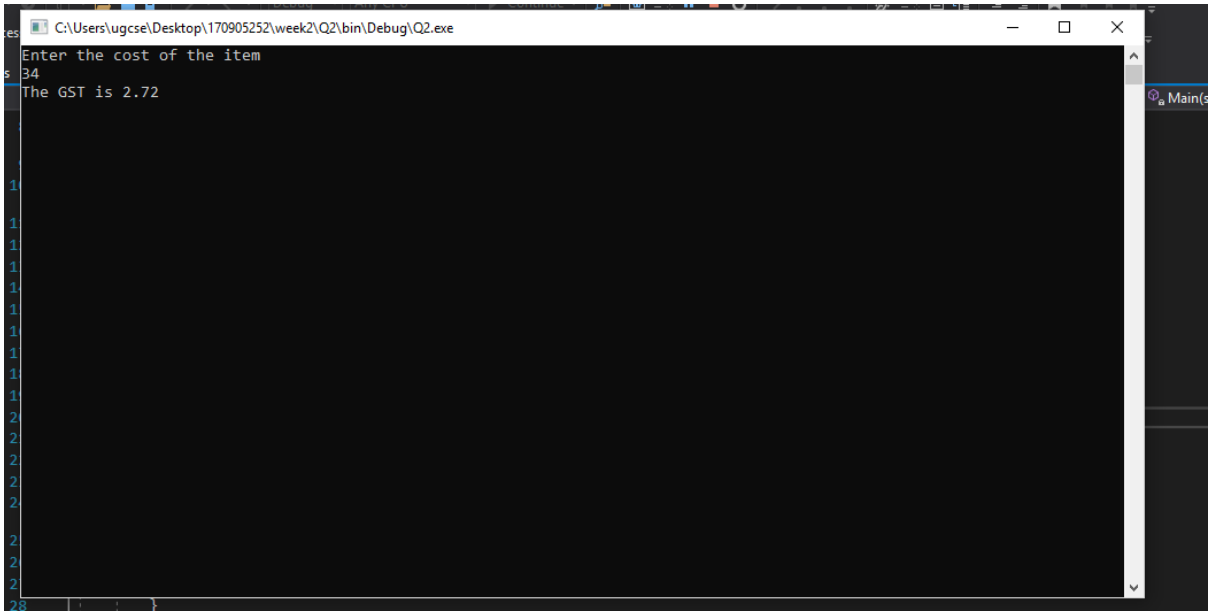
```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace Q2
{
   class Program
   {
      static void Main(string[] args)
      {
         Item item = new Item();
         double cost;

         Console.WriteLine("Enter the cost of the item");
         string s1 = Console.ReadLine();
         double.TryParse(s1, out cost);
```

```
            item.Cost = cost;

            Console.WriteLine("The GST is " + CalcGst(item.Cost));
            Console.ReadLine();
        }

        private static double CalcGst(double cost)
        {
            return 0.08 * cost;
        }
    }
}
```

Item.cs

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace Q2
{
    class Item
    {
        public static double cost;
        public string name { get; set; }

        public double Cost
        {
            get
            {
```

```
            return cost;
        }

        set
        {
            if(value < 0)
            {
                cost = 0;
            }
            else
            {
                cost = value;
            }
        }
    }

  }
}
```



Q3: Program.cs

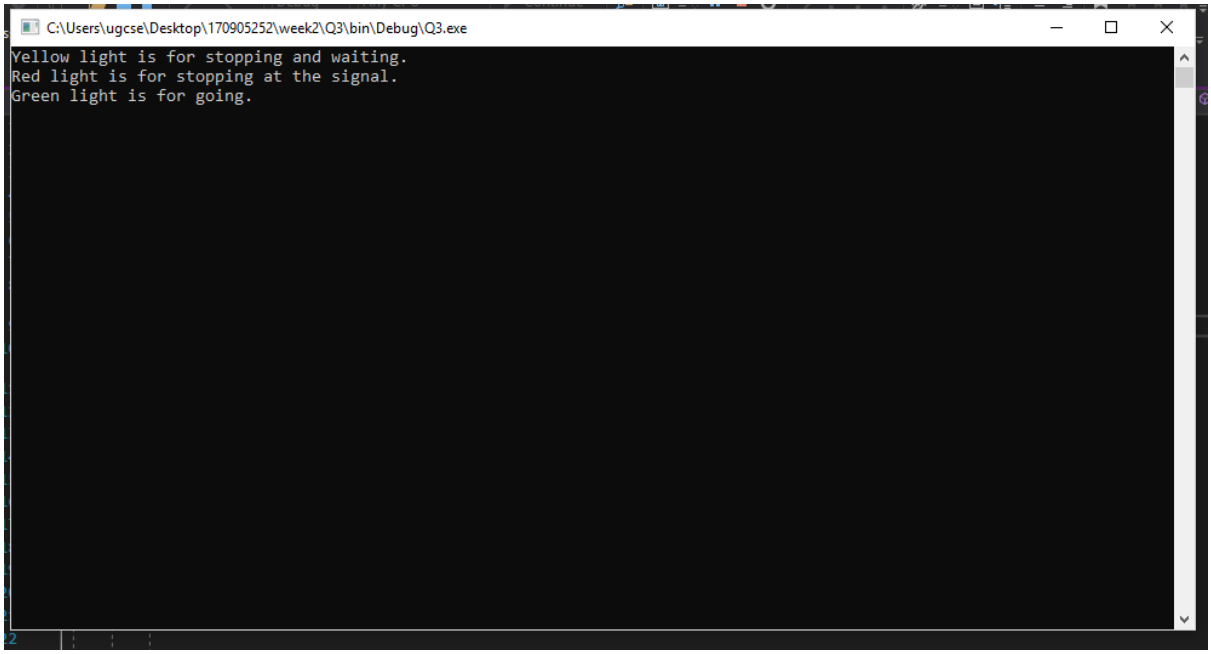
```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace Q3
{
   class Program
   {
      static void Main(string[] args)
      {
         TrafficSignal t = new TrafficSignal();

         TrafficSignal.TrafficDel del;

         del = t.Yellow;
         del += t.Red;
         del += t.Green;

         del();

         Console.Read();

      }
   }
}
```

TrafficSignal.cs

```
using System;
using System.Collections.Generic;
```

```
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace Q3
{
   class TrafficSignal
   {
      public delegate void TrafficDel();

      public void Yellow()
      {
         Console.WriteLine("Yellow light is for stopping and waiting.");
      }

      public void Red()
      {
         Console.WriteLine("Red light is for stopping at the signal.");
      }

      public void Green()
      {
         Console.WriteLine("Green light is for going.");
      }
   }
```

}


C:\Users\ugcse\Desktop\170905252\week2\Q3\bin\Debug\Q3.exe
Yellow light is for stopping and waiting.
Red light is for stopping at the signal.
Green light is for going.