 // A simple elevator simulation  
  
 **using** System;  
  
 class Elevator  
 {  
     **private** **int** *currentFloor* = 1;  
     **private** **int** *requestedFloor* = 0;  
     **private** **int** *totalFloorsTraveled* = 0;  
     **private** Person *passenger*;  
  
     **public** void **LoadPassenger**()  
     {  
         *passenger* = **new** Person();  
     }  
      **public** void **InitiateNewFloorRequest**()  
   {  
         *requestedFloor* = *passenger*.**NewFloorRequest**();  
         Console.**WriteLine**("Departing floor: " + *currentFloor*  
             + " Traveling to floor: " + *requestedFloor*);  
         *totalFloorsTraveled* = *totalFloorsTraveled* +  
             Math.**Abs**(*currentFloor* - *requestedFloor*);  
         *currentFloor* = *requestedFloor*;  
     }  
  
     **public** void **ReportStatistic**()  
         {  
         Console.**WriteLine**("Total floors traveled: " + *totalFloorsTraveled*);  
     }  
 }  
  
 class Person  
 {  
     **private** System.Random *randomNumberGenerator*;  
  
     **public** Person()  
     {  
         *randomNumberGenerator* = **new** System.Random();  
     }  
  
     **public** **int** **NewFloorRequest**()  
     {  
          // Return randomly generated number  
         return *randomNumberGenerator*.**Next**(1,30);  
     }  
 }  
  
 class Building  
 {  
     **private** static Elevator *elevatorA*;  
  
     **public** static void **Main**()  
     {  
         *elevatorA* = **new** Elevator();  
 *elevatorA*.**LoadPassenger**();  
         *elevatorA*.**InitiateNewFloorRequest**();  
         *elevatorA*.**InitiateNewFloorRequest**();  
         *elevatorA*.**InitiateNewFloorRequest**();  
         *elevatorA*.**InitiateNewFloorRequest**();  
         *elevatorA*.**InitiateNewFloorRequest**();  
         *elevatorA*.**ReportStatistic**();  
         Console.**ReadLine**();  
     }  
 }