**Exercise1**

Step1 : Create a SRP violationLab project

Step2: Create the report class as shown below

|  |
| --- |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace SRPViolation  {  using System;  using System.IO;  public class Report  {  public string Title { get; set; }  public string Content { get; set; }  public string Template { get; set; }  public void GenerateReport()  {  Template= $"=======Header=============\n" +  $"Titile is {Title}\n" +  $"Content is {Content}\n" +  $"======Footer===========";  }  public void SaveAndSend(string filePath, string toAddress)  {  SaveToFile(filePath);  SendEmail(toAddress);  }  private void SaveToFile(string filePath)  {  using (StreamWriter writer = new StreamWriter(filePath))  {  writer.WriteLine(Template);  }  }  private void SendEmail(string toAddress)  {  Console.WriteLine("emailed to "+toAddress);  }  }    } |

Step3:In the Program class add following code

|  |
| --- |
| class Program  {  static void Main()  {  // Usage  Report report = new Report  {  Title = "Monthly Report",  Content = "This is the content of the report."  };  report.GenerateReport();  report.SaveAndSend("report.txt", "recipient@example.com");  }  } |

Step4:Run the application and test the file is created and mail is sent message is printed

**Exercise1**

Step1:Create an SRP Refactored Lab application

Step2:Make separate classes for Report,EmailSender and FileSaver

|  |
| --- |
| public class Report  {  public string Title { get; set; }  public string Content { get; set; }  public string Template { get; set; }  public void GenerateReport()  {  Template = $"=======Header=============\n" +  $"Titile is {Title}\n" +  $"Content is {Content}\n" +  $"======Footer===========";  }  }  public class FileSaver  {  public static void SaveToFile(Report report, string filePath)  {  using (StreamWriter writer = new StreamWriter(filePath))  {  writer.WriteLine($"Title: {report.Title}");  writer.WriteLine($"Content: {report.Content}");  }  }  }  public class EmailSender  {  public static void SendEmail(Report report, string toAddress)  {  Console.WriteLine("emailed to " + toAddress);  }  } |

Step3: Test the application from program.cs

|  |
| --- |
| class Program  {  static void Main()  {  // Usage  Report report = new Report  {  Title = "Monthly Report",  Content = "This is the content of the report."  };  report.GenerateReport();  FileSaver.SaveToFile(report, "report.txt");  EmailSender.SendEmail(report, "recipient@example.com");  }  } |

//