HTTP PROXY

01/10/2021

OVERVIEW

1. Project Description

This is a console application that serves as proxy server that logs all the headers of all the HTTP requests.

2. High-Level Requirements

Logs Headers for every HTTP request

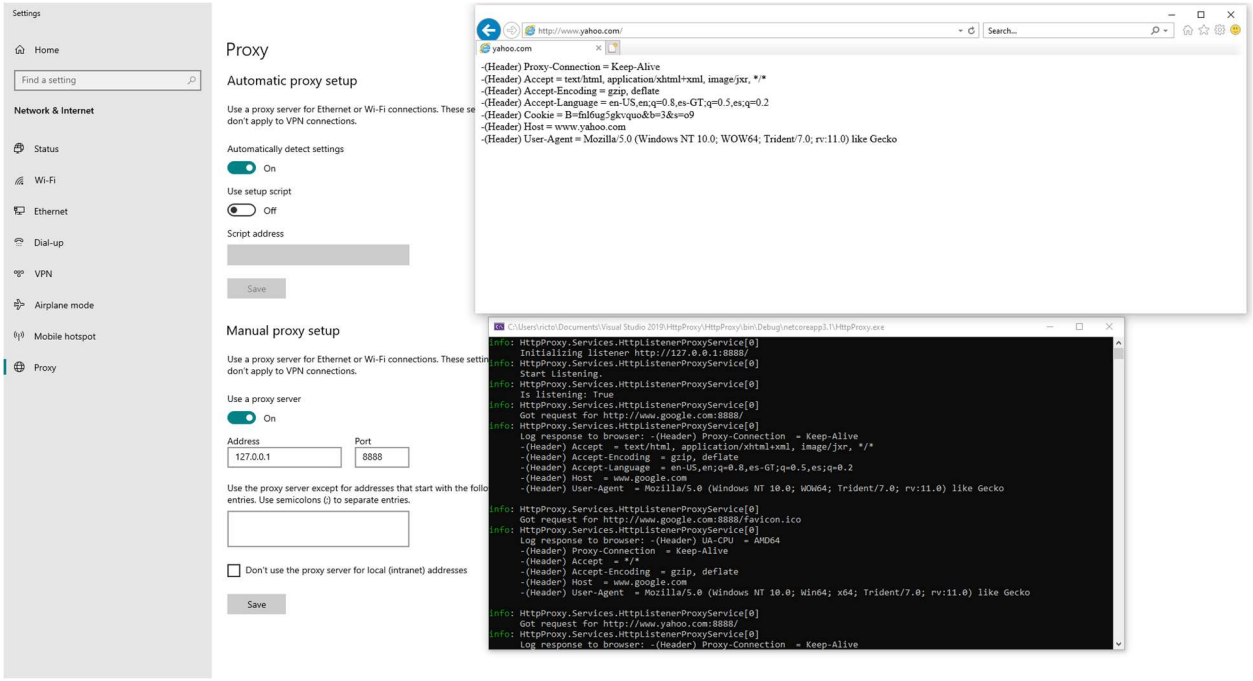
The exercise must include the following:

- Ability to record all the logs for the http request
- Unit test for integration to ensure proper functioning of the application
- Explanation of the code and steps how to setup the application to make it work
- Screens that show the application output

3. Deliverables

Screenshots that show the output of the project and unit test

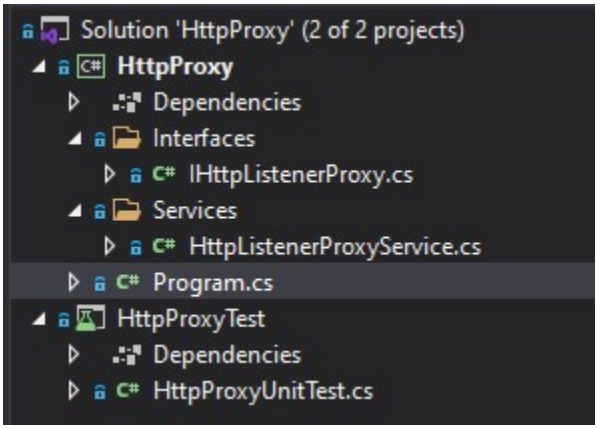
1. Application Output



2. Unit Test

4. Code Explanation

Here is the explanation of how the project is structured



HttpProxy

This is the main project; I'm going to describe how is structured:

Interfaces: Here is where the interface that use this project is declared all the methods that will be implemented are there.

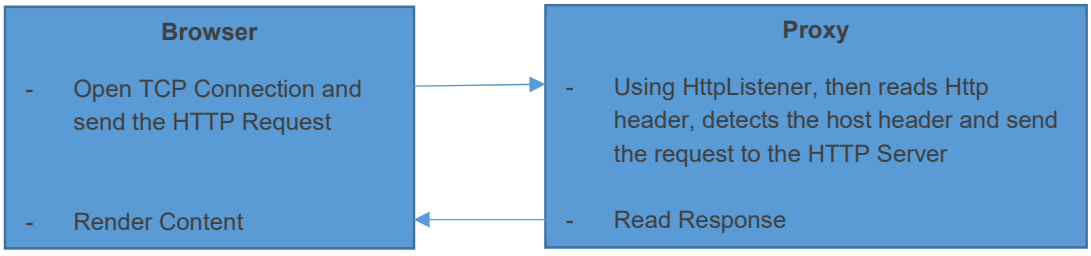
Services: Here is where the proxy logic is implemented, here in this class HttpListenerProxyService.cs is where all the logic of the project is based, I used an HttpListener to be able to capture the Http requests that were made once the proxy was configured in my local computer.

Program class: is where the dependency injection is configured, also the logs and the services are injected here, in order to make the project work.

HttpProxyTest

This is the project where the integration test was made to ensure proper functioning

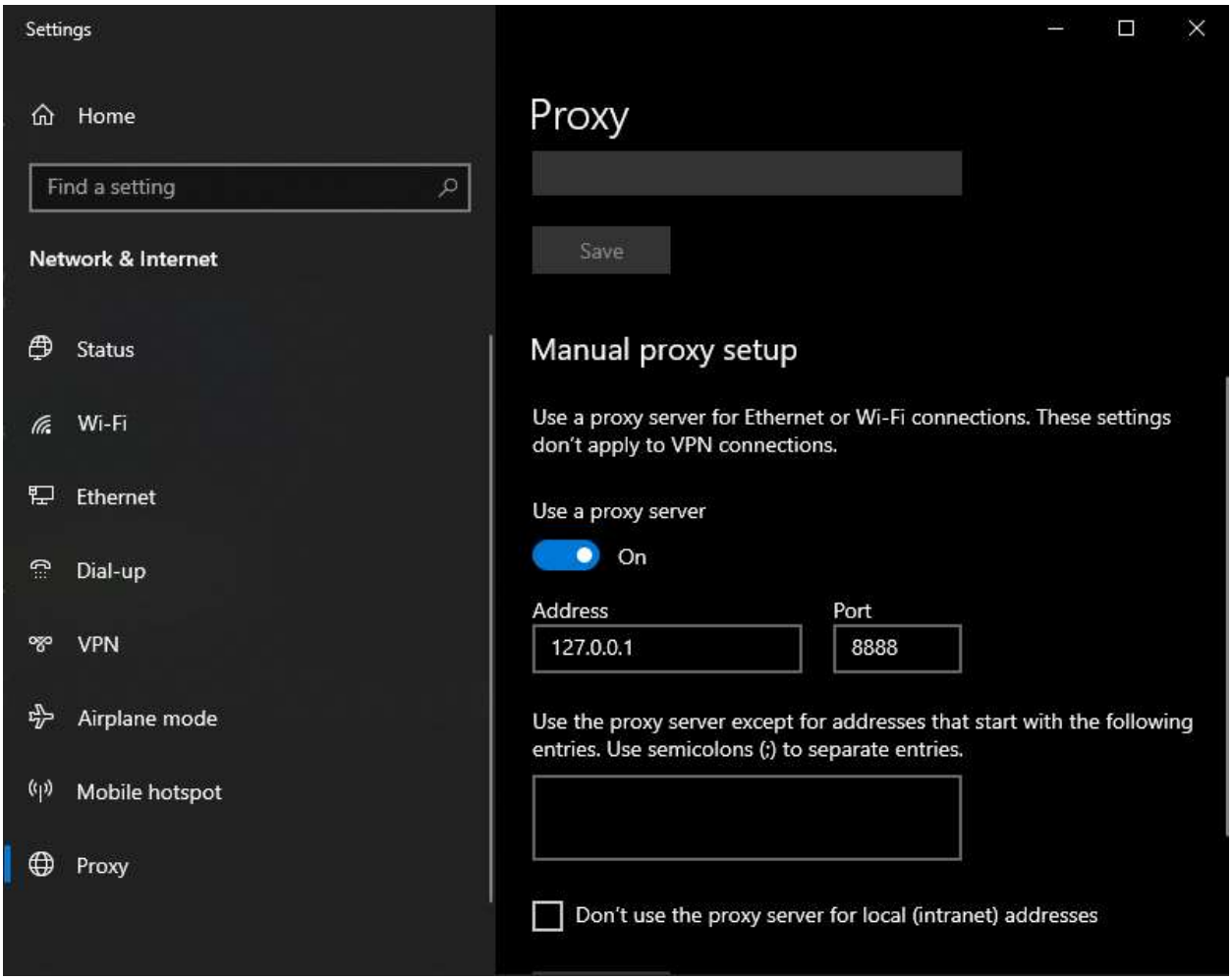
Project Diagram



5. Steps To Run the application

Here are the steps to make the application works

1. Run Visual Studio 2019 as administrator, otherwise you are not going to be able to listen http request on Windows due to security restrictions.
2. Run the application hitting the key F5
3. Setup the manual proxy setup in windows settings
   3.1. Set the address 127.0.0.1
   3.2. Set the port 888
   3.3. Hit the save button



4. **Very Important: Open Internet Explorer** (Other modern browsers like Chrome, Firefox or Edge don't show the output as expected), after you can make http requests and the output will be the following.