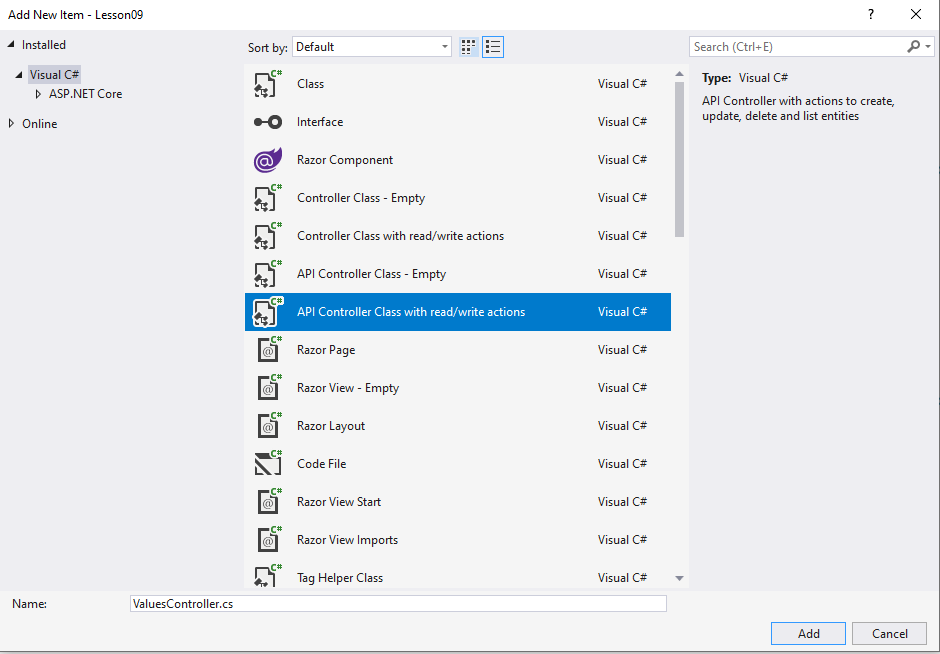
Lesson 09 – Introduction to Web API

1. If you have not completed the project setup, please perform project setup following instructions in **C286 L09 Project Setup.docx** first.
2. Open **Task List** window from the menu **VIEW**, **Task List**. Use the **Filter** function in the Project heading to display only the Task for Lesson09.
3. Download and install the 64-bit software “Postman” from this link:

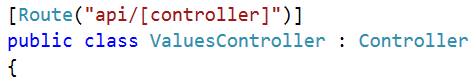
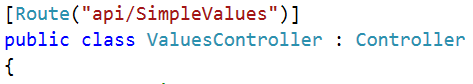
<https://www.getpostman.com/downloads/>

We will use this software to test various API urls during the lesson.

1. **Activity 1:**
   * + 1. ***Add a new web api controller:*** In solution explorer, right-click on **Controllers** to add a new item. In the **Add New Item** dialog box, select **ASP.NET > API Controller Class with read/write actions**, leave the default name as **ValuesController.cs** and click on the **[Add]** button.

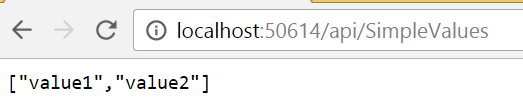


* + - 1. ***Configure the basic routing:*** Modify the basic routing template of **ValuesController**  as below

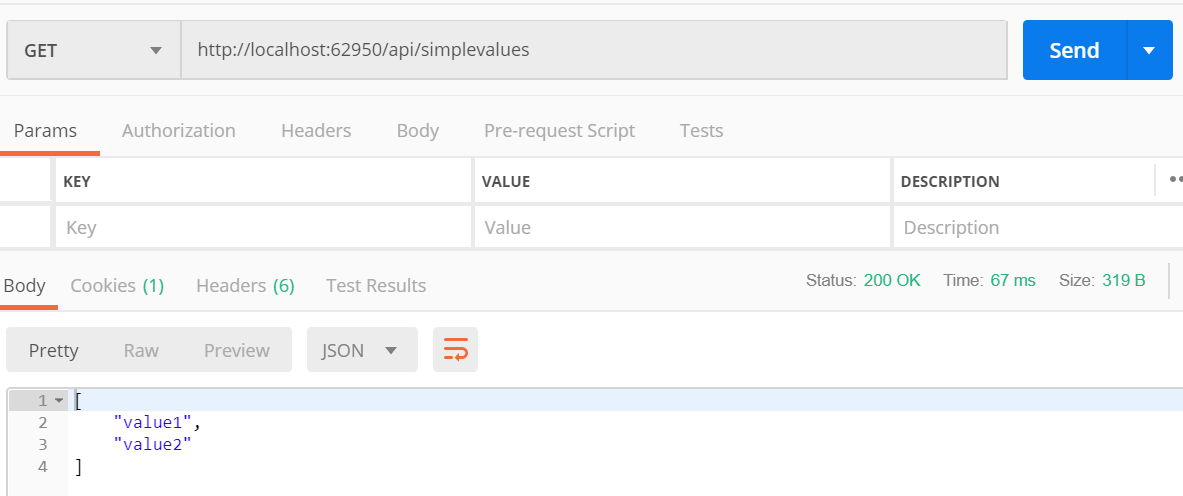
change **[controller]** to **SimpleValues**

* + - 1. Run the application in Chrome and navigate to [**http://localhost:xxxxx/api/SimpleValues**](http://localhost:xxxxx/api/SimpleValues)

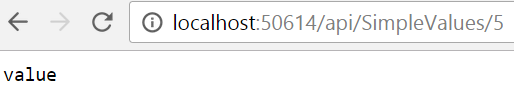


Note: You can use Internext Explorer. But the JSON output will be downloaded as a file instead. Using Chrome is recommended as it is easier to view the content of the JSON format returned

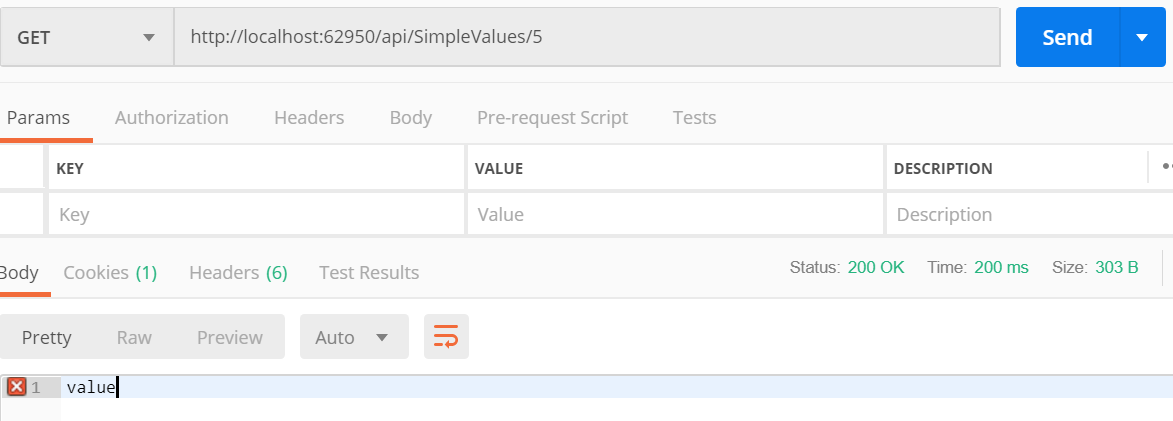
Using Postman:



* + - 1. Which action is triggered by **api/SimpleValues**?
      2. Navigate to [**http://localhost:xxxxx/api/SimpleValues/5**](http://localhost:xxxxx/api/SimpleValues/5)**:**



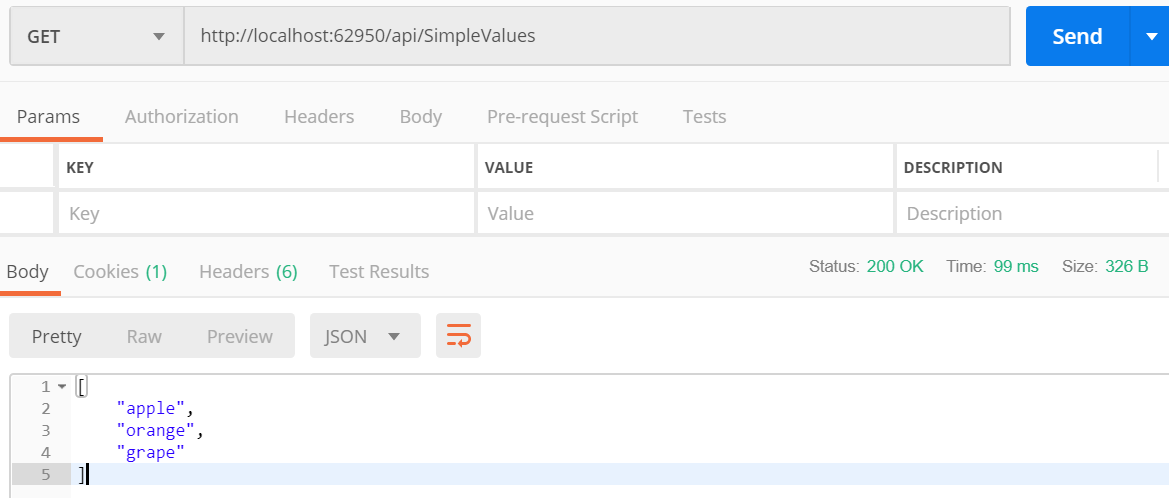
Postman:



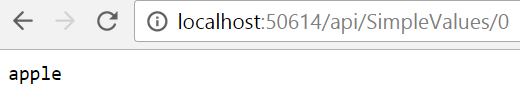
* + - 1. Which action is triggered by **api/SimpleValues/5**?
      2. Modify the **ValuesController** to achieve the following result:
         1. [**http://localhost:xxxxx/api/SimpleValues**](http://localhost:xxxxx/api/SimpleValues)



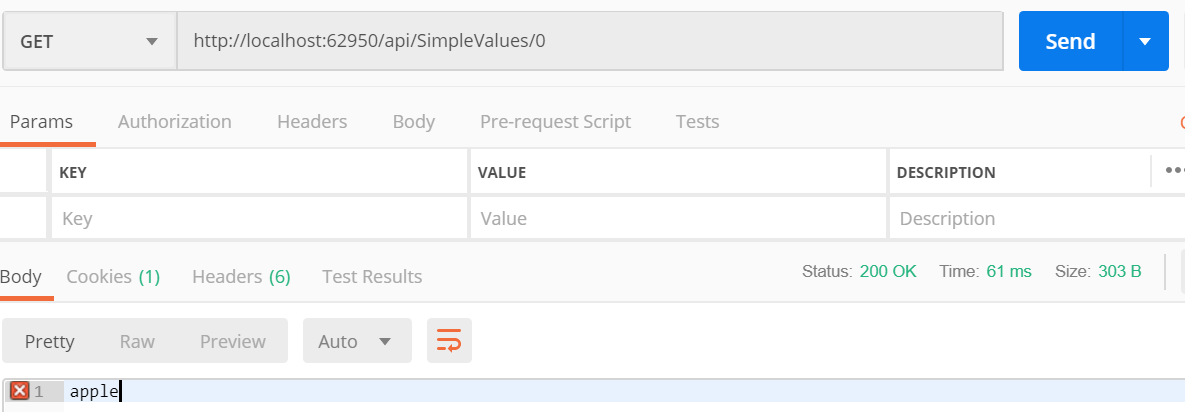
Postman:



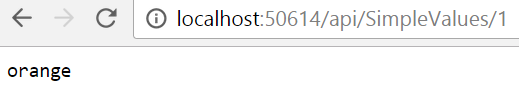
* + - * 1. [**http://localhost:xxxxx/api/SimpleValues/0**](http://localhost:xxxxx/api/SimpleValues/0)



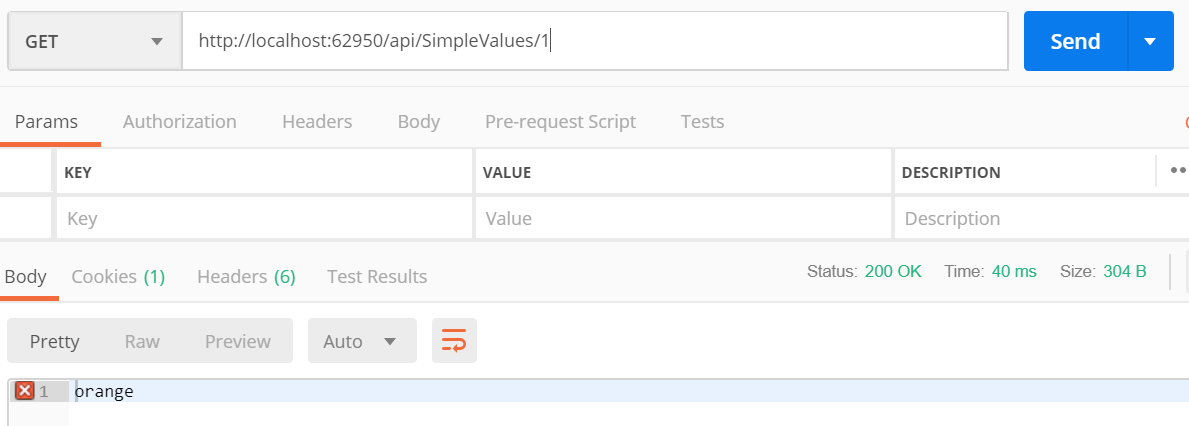
Postman:



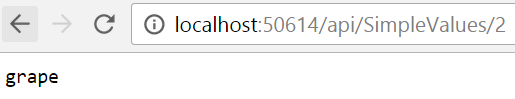
* + - * 1. [**http://localhost:xxxxx/api/SimpleValues/1**](http://localhost:xxxxx/api/SimpleValues/1)



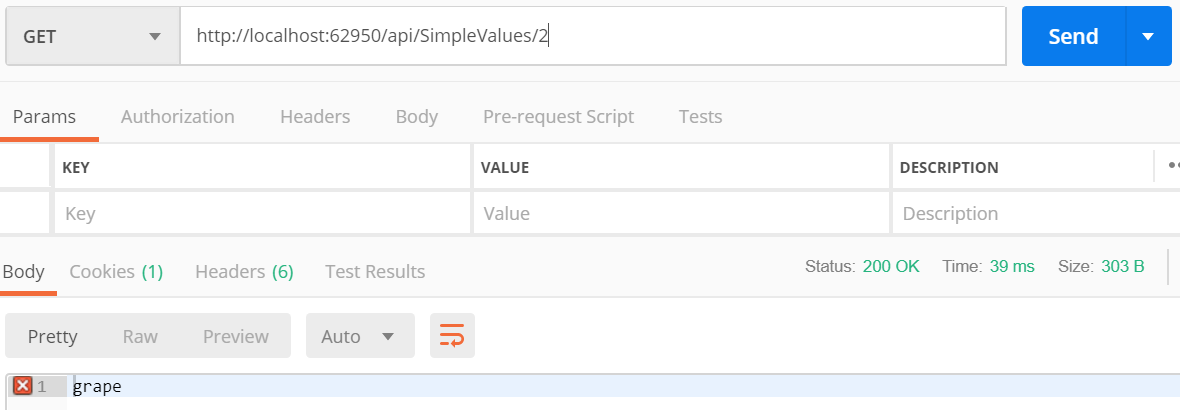
Postman:



* + - * 1. [**http://localhost:xxxxx/api/SimpleValues/2**](http://localhost:xxxxx/api/SimpleValues/2)



Postman:



* + - 1. Copy your modified Web API actions to here:

private string[] fruits = {“apple”,”orange”,”grape”};

[HttpGet]

Public IEnumerable<string> Get()

{

Return fruits;

}

[HttpGet]

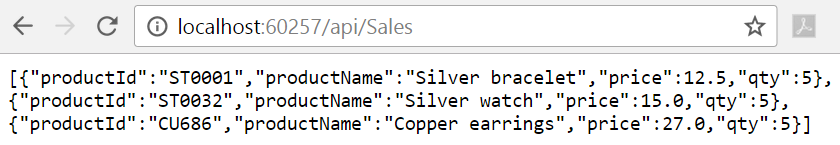
public string Get(int id)

{

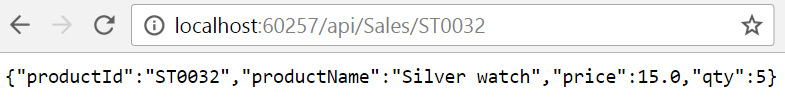
Return fruits[id];

}

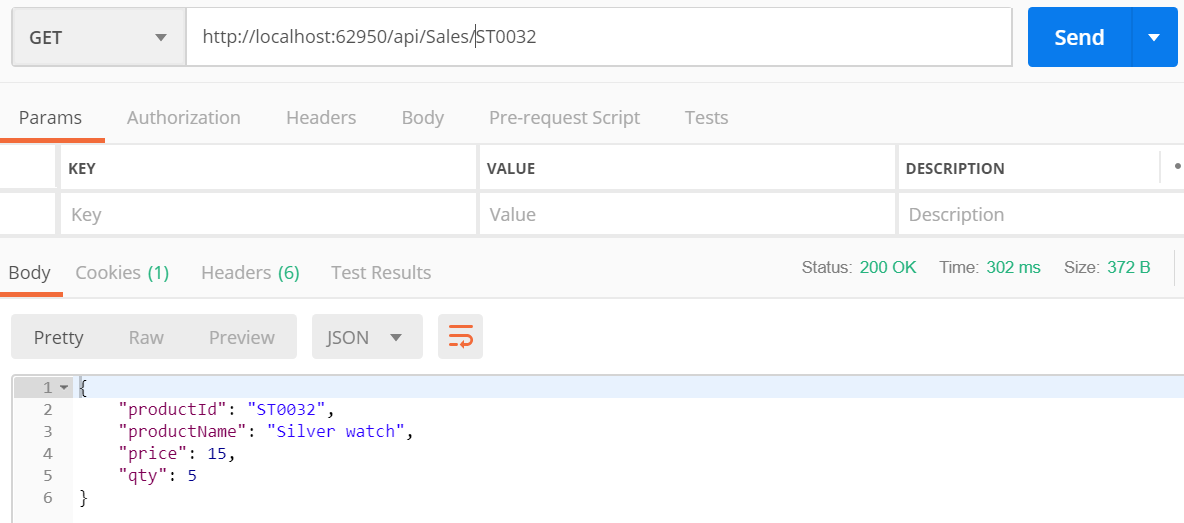
1. **Activity 2:**
   * + 1. Perform tasks 2-1 to 2-2.
       2. Refer to the 6P Part 1 slides to help you complete the task.
       3. Use browser, Chrome preferred, to test the various web api actions, use screenshots captured below as reference:
          1. GetAll action



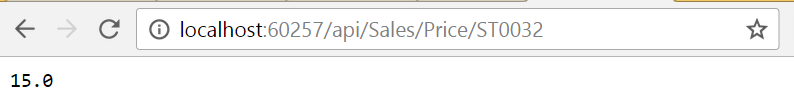
* + - * 1. Get action



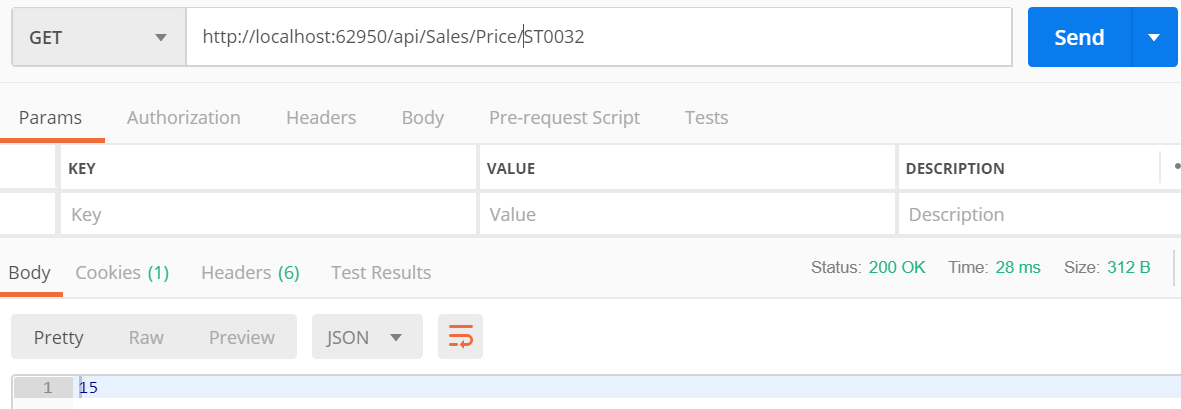
Postman:



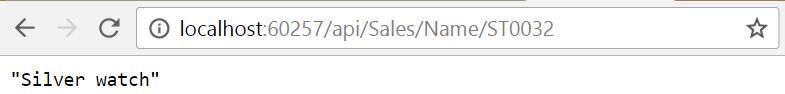
* + - * 1. GetPrice action



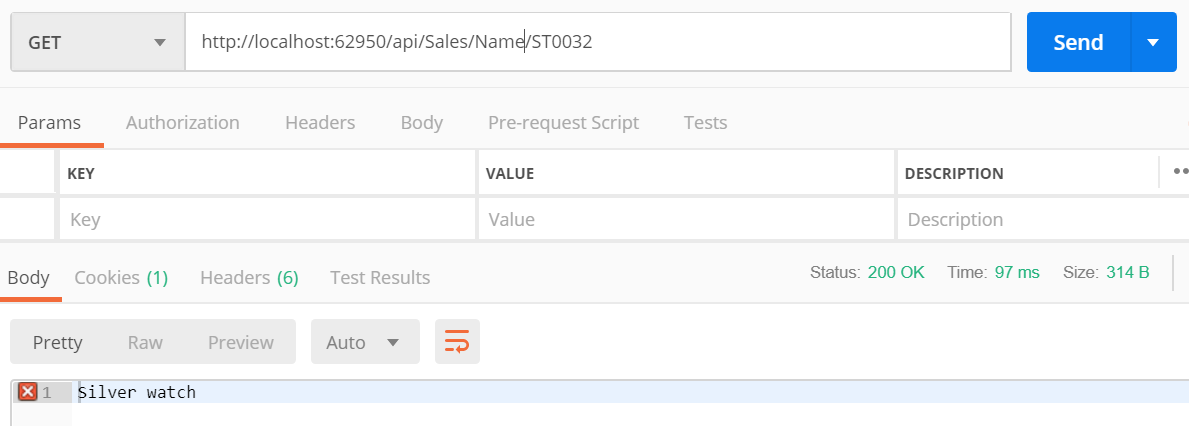
Postman:



* + - * 1. GetName action



Postman:



Note: Must ensure the string is enclosed within a pair of double quote "…"

1. **Activity 3:** 
   * + 1. Perform **Tasks 3-1 to 3-3**.
       2. **Tasks 3-1 to 3-3** are in Views/DemoAjax/Index.cshtml.
       3. Refer to the 6P Part 1 slides to help you complete the task.
       4. Run the application and navigate to this page.
       5. Check your answer with the lecturer.

# Solving the Problem

1. You can complete the problem by following the solution tasks in the project. You need to open RPNotes/Index.cshtml to see all soluton tasks.
2. Recommended order of implementation:
   1. Navigate to a specific lesson
      1. Web API action: **RPNotesApiController Get** action
      2. jQuery function to consume: **Views/RPNotes/Index.cshtml LoadNotes** function
      3. Refer to comments in code file for sample web requests and and responses
   2. Add new module
      1. Web API action **RPNotesApiController AddModule** action
      2. jQuery function to consume: **Views/RPNotes/Index.cshtml AddNewModule** function
      3. Refer to comments in code file for sample web requests and and responses
   3. Get all modules
      1. Partial View action: **RPNotesController GetModules** action
      2. jQuery function to consume: **Views/RPNotes/Index.cshtml LoadModules** function

# Testing Your Solution

1. Provide test cases here and screen shots to demonstrate that your web app is functioning well.

Graphical user interface, text, application

Description automatically generated

Graphical user interface, application, Teams

Description automatically generated

Graphical user interface, application

Description automatically generated

Shape

Description automatically generated with medium confidence

Graphical user interface, text, application, email

Description automatically generated

*— End of Worksheet —*