WebAPI Assignment:

**Assignment: Create Web API and consume from MVC application**

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**Problem description: Create a web api to show the details of employees in a MVC application like below output:**

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**Step 1:** First create the Web API project named EmployeeDetails. Refer the below screenshot:

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**Step 2:** After project creation, find web api configuration file and try to analyse it.

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***Note:*** Observe the route template of web api .

**Step 3:** Create two model classes named Department and EmployeeDetails.

Department-> ID (Int), DepartmentName(string), Employees(ICollectiom<classname>)

EmployeeDetails-> ID (Int), EmployeeName(string)

**Step 4:** Create apiController class Named “EmployeeDetails” where

* Create an employee details with department details.
* Fetch the employee details with department details.
* Implement attribute routing

***Note:***

* CRUD operation corresponds to HTTP verbs in Web API->

Create – HttpPost

Read – HttpGet

Update – HttpPut

Delete – HttpDelete

* APIController class inherits the base class “ApiController”

**Step 5** – Consume the web api from the MVC application. Refer the below steps:

* Create a normal mvc controller class named Employee
* Then consume the web api from it , refer the below example:

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| List<Department> Objemployee = new List<Department>();  --**Create a HttpClient object**  --**Set the Client base address with your local host address e.g. new Uri("http://localhost:64189/");**  --**Add an Accept header for JSON format.**    --**Create HttpResponseMessage object and fetch the result from specific HTTP method e.g. HttpResponseMessage response = client.GetAsync("specify the location where Get method will be obtained").Result**;    if (response.IsSuccessStatusCode)  {  var EmpResponse = response.Content.ReadAsStringAsync().Result;  --Deserializing the response recieved from web api and storing into the Employee list.Use JsonConvert.DeserializeObject<List<Department>>(EmpResponse);  }  //web api sent error response, //log response status here...  else  {      Objemployee = Enumerable.Empty<Department>();  ModelState.AddModelError(string.Empty, "Server error. Please contact administrator.");  }  return View(Objemployee);  } |

**Step 6** - Run the application and analyse how web api is working for your MVC application.

***Keyfocus point of this assignment:***

* How to create web api project
* Web API configuration
* HTTP Verbs
* Overview of create and Read operation in web api(Update and delete operation also need to be implemented)
* How to consume a web api application from a MVC application

***Future Scope:***

* Parameter binding
* Media type formatters
* Dependency Injection

--Thanks--