Section 3

**Building the Web API**

***Section Description (from the outline):*** This section talks about HTTP verbs and its implementation.

Video 3.1

Understanding HTTP verbs

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| **Metadata**: Spot the problem, highlight it, and design the solution in 3 core steps  (To be covered in the video) |

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| **Problem / Solution (Not more than 50 words)** | **Step 1 (Not more than 10 words)** | **Step 2 (Not more than 10 words)** | **Step 3 (Not more than 10 words)** |
| This video talks about HTTP verbs its importance in Web API | We will start discussing with GET verb and cover Post, Put, Delete and Patch |  |  |

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| **Script** the Video – Plan your narration (viewers will see and hear this) |

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| **Introduction** | | |
| **No.** | **Action on Screen  (Code / Screenshots / One line about the action occurring on screen)** | **Narration**  **(The corresponding explanation to the Action on Screen)** |
| 1 | Replace the slide with a screenshot of the actual slide  C:\Data\Work\ForPackt\Deliverables\Draft-Scripts\Section 3\Video 3.1\images\SectionFirst.png  C:\Data\Work\ForPackt\Deliverables\Draft-Scripts\Section 3\Video 3.1\images\SectionSecond.png | **Section Introduction**  Hi Welcome to another section *Building the Web API* of this Course *Learning ASP.NET Web API*.  In previous section, we learnt preliminary concepts and get started with the project. In this section we will be learning more key concepts and implement it in our sample.  In this section we will first understand HTTP verbs. Then we will implement each verb in our sample. |
| 2 | [Mandatory slide] – Video Name  C:\Data\Work\ForPackt\Deliverables\Draft-Scripts\Section 3\Video 3.1\images\31.png | **Video Introduction**  Now we move on to the first video of this section that discusses HTTP verbs which is core for REST based services.  . |

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| **Steps or Tasks** | | |
| **No.** | **Action on Screen  (Code / Screenshots / One line about the action occurring on screen)** | **Narration**  **(The corresponding explanation to the Action on Screen)** |
| 3 |  | In previous video, we exposed Books collections over URL. In last video where we talked about routing, we discussed that which operation is to be performed, is decided by HTTP Verbs in the request. These Http verbs helps in performing basically the CRUD operation (Create, READ, Update and Delete). We will discuss each verb. |
| 4 | C:\Data\Work\ForPackt\Deliverables\Draft-Scripts\Section 3\Video 3.1\images\311.png | When we sent a request using Get over a collection which is api/books, it returns the collection of books to the client. We have already seen it in previous video.  If we want to receive any specific book then we need to pass the Identifier of the resource.  Any additional data that needs to send to server with it while using GET verb, have to go via URL only. So for a specific resource the URL will be  api/books/id  The response code returned by these resource is 200. |
| 5 | C:\Data\Work\ForPackt\Deliverables\Draft-Scripts\Section 3\Video 3.1\images\311.png | POST is used to create a resource and unlike Get, here client passes the data via request body. Once successfully resource is created on server it returns response code 201 with the url of newly created resource in Location header. Some prefer to send the complete resource in the body or both the header and the body which includes the identifier of the resource some additional information which was created at server if required. |
| 6 | C:\Data\Work\ForPackt\Deliverables\Draft-Scripts\Section 3\Video 3.1\images\312.png | Put is used to update an existing resource. The Identifier of the resource is passed in URL and the data is passed via request body. In response 200 with the url of content location header or updated resource in request body is returned. |
| 7 | C:\Data\Work\ForPackt\Deliverables\Draft-Scripts\Section 3\Video 3.1\images\312.png | As the name suggests that Delete is used for removing a resource from server. For that server requires the identifier of the resource which is passed in the URL and in response it returns 200 |
| 8 | C:\Data\Work\ForPackt\Deliverables\Draft-Scripts\Section 3\Video 3.1\images\313.png | It is another Verb which is relatively new. It is used to update some specific values in existing resource.  Got confused between Put and Patch?  Even there is much debate between Put and Patch and its usages. Let me clear you that the key difference is that in PUT, we replace the complete resource with new one while in PATCH, which we just make a modification in existing resource like updating some specific property of Book and save it. |

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| **Summary** | |
|  | In this video we have discussed about HTTP verbs, its usages etc. |
| [Mandatory slide] – Next Video  C:\Data\Work\ForPackt\Deliverables\Draft-Scripts\Section 3\Video 3.1\images\314.png | In the next video, we will start the implementation of HTTP verbs and start with GET verb. |