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| **Course Title** | **MSC In Information Systems with Computing** |
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**Proposal on development of Web API:**

We are going to develop one API which is completely related to Web Service. This API will give the provision to create new contact. The API contains JSON or XML which will provide data. The user will get the data from API and it will represent the design. This will maintain all the contact details of a company in a centralized location. If anyone from the company or outside of the organization want this contact information, we are sharing through this Web API. In this project we will have two applications. The first application is Web API i.e. <http://localhost:8081/api/Contacts> and the second one is MVC application which is consuming API via URL http://localhost:8081. http://localhost:8081/Help URL will provide/expose end points of API to consumers. The user will be able to get all the contact details.

The endpoints of API are written below:

1. GET API/Contacts. This API will help to get all contacts.
2. GET API /Contacts/{id}. This API will help to get contact by ID.
3. POST API /Contacts. This API will help to add a new contact.
4. PUT API /Contacts/{id}. This API will help to update an existing contact.
5. DELETE API /Contacts/{id}. This API will help to delete a contact.

**Web API:**

Web API is a framework that makes it easy for a user to build HTTP services that reach a broad range of clients including browsers and mobile devices. ASP.NET Web API is an ideal platform for building applications on the .NET framework. It is an extensible framework for building HTTP based services that can be accessed in different applications on different platforms such as Web, Windows etc... It works more or less the same way as ASP.NET, MVC web application except that it sends data as a response instead of HTML view.

**MVC application:**

MVC is used for developing software that divides an application into three parts. This is done to separate internal representations of information from the ways information is presented to and accepted from the user. It is used for desktop GUI’s. This architecture is becoming popular to design web applications and mobile clients. Popular programming languages like Java, C Sharp have MVC frameworks that are used in web application development straight out of the box. It will consume the Web API.

We are going to use the following technologies.

1. **C-Sharp:**

C# is the programming language of multi-paradigm and it was developed by Microsoft. It is mainly used to develop desktop application and more recently Windows 8 and 10. It is the part of .NET application and it is used alongside languages like ASP in web development and apps.

1. **MVC5:**

ASP.NET **MVC** is a framework which is lightweight. This framework is integrated with existing ASP.NET framework. Some of these integrated features are master pages and membership-based authentication.

1. **Knockout JS:**

Knockout JS is defined as an open source project which is the JavaScript implementation of the Model-View-View Model pattern with templates. It helps in clear separation between domain data, view components and data to be displayed. It also helps to manage the relationship between components.

By using MVC and Knockout Js, we are going to consume web API to get contacts using endpoint API /contacts. We will get json data which contains the list of contacts and displayed this contact in html page.