### Assignment 2:

Due Dec 9, 9AM

### Database

Please use the following database and name it **VolunteerScheduler**: (1 mark)

|  |
| --- |
| DROP TABLE TaskAssignment  DROP TABLE Schedule  DROP TABLE Volunteer  GO  CREATE TABLE Schedule(  monthAssigned VARCHAR(15) PRIMARY KEY,  monthSequence INT  );  CREATE TABLE Volunteer(  volunteerID INT IDENTITY PRIMARY KEY,  firstName VARCHAR(25),  lastName VARCHAR(25)  );  CREATE TABLE TaskAssignment (  volunteerID INT,  monthAssigned VARCHAR(15),    PRIMARY KEY(volunteerID, monthAssigned),  FOREIGN KEY (volunteerID) REFERENCES Volunteer(volunteerID),  FOREIGN KEY (monthAssigned) REFERENCES Schedule(monthAssigned)  );  INSERT INTO Schedule VALUES('November 2016', 1);  INSERT INTO Schedule VALUES('December 2016', 2);  INSERT INTO Schedule VALUES('January 2017', 3);  INSERT INTO Schedule VALUES('February 2017', 4);  INSERT INTO Schedule VALUES('March 2017', 5);  INSERT INTO Schedule VALUES('April 2017', 6);  INSERT INTO Schedule VALUES('May 2017', 7); |

Create an empty MVC project and add an entity data model that references the VolunteerScheduler database. Do not change the database structure.

### Twitter Bootstrap

* The application uses Twitter Bootstrap which implements a nav bar in the layout page. (1 mark)
* The nav bar needs to provide easy and intuitive navigation throughout the application.
* The nav bar needs to be mobile responsive (1 mark)
* The nav bar should not have rounded corners (1 mark)
* The nav bar at least needs a different background color and font color than the default (1 mark)

### Volunteer Section

Implement:

* Nice looking CRUD pages are added with the help of ASP.NET to create, display, update and delete volunteers in the database. (4 marks)
* Client \*and\* server side validation through ASP.NET with the help of a view model. All names are required and they must be at least two characters long to be valid. (4 marks)
* If you try to delete somebody who is scheduled, the foreign key reference will throw an error. Catch It gracefully and display a user-friendly message to explain why that the user can’t be deleted because they are scheduled. (2 marks)

### Volunteer Assignment

On this page, you will allow your application user to assign volunteers to each of the month slot:



Remember you will probably have to hand-code parts of this view. See the sample project for hints.

* A selector displays all full names from the Volunteer table in the database when clicked. This selector is placed beside each month slot. (3 marks)
* All selector controls are initially empty when the page loads. However, once a person has been assigned for a specific month be sure to display the last selection that was saved to the database. (1 mark)
* The posted data from this page is captured in the HttpPost enabled action method by using a view model. (3 marks)
* Data is validated on the server before it is saved to the database. (1 mark)
* Changes are saved to the database. (4 marks)

Use repositories to store all queries for each view model. (4 marks)

### Bonus

With the help of JQuery or raw JavaScript, disable the submit button until all of the name select controls have been selected. To get the bonus you have to figure out how to do this on your own. Please do not use Angular for this.

### Code

* Remember, lots of logic in the controller or even the view is bad. Try to write all of your code so it can be reused.