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Studio 1 and 2 tasks
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Self-Evaluation {To be highlighted by Student only}:

Need Help	Work in Progress	Pass	Credit	Distinction	High Distinction

Task 1.1 (PASS AND CREDIT LEVEL):

- As evident from the figure 1, the community version of the visual studio is installed.
- Also, the localhost screenshot of the virtual studio community edition IDE which is running a sample MVC application on my local machine is presented in figure 2.

Screenshots:

Figure – 1: Version screenshot

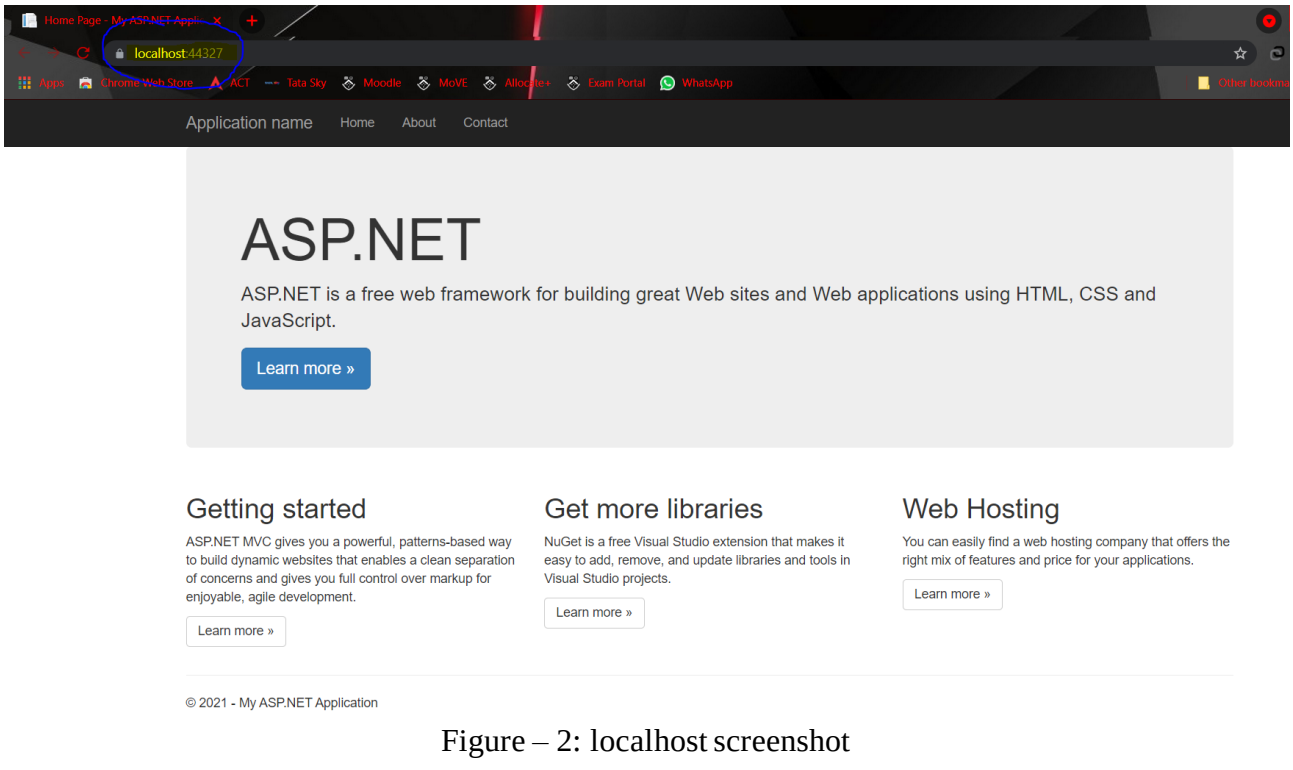

Figure – 2: localhost screenshot

Link to code repository:
https://github.com/KVD1302/weekly_activities_5032/tree/main/Week%201

Task 1.2 (DISTINCTION AND HIGH DISTINCTION LEVEL):

1. Research and list five different IDEs currently used in the Agile software development industry:

Based on a survey conducted on IT professionals and students from various streams, the most popular IDEs currently used in the Agile software development industry are varying based on their jobs/ roles. As evident from figure 3, 'Jupyter' remains the most popular IDE among all the respondents except 'Statisticians'. Other popular IDEs based on the roles are:

1. RStudio: Data Scientist, Research Scientist, Data Analyst and Business Analyst
2. Visual Studio: Student, Data Engineer, Product/Project Engineer and Software Engineer
3. Notepad: DBA/Database Engineer
4. Jupyter: Statistician
5. PyCharm

This gives us an idea about the most used IDEs based on different roles.

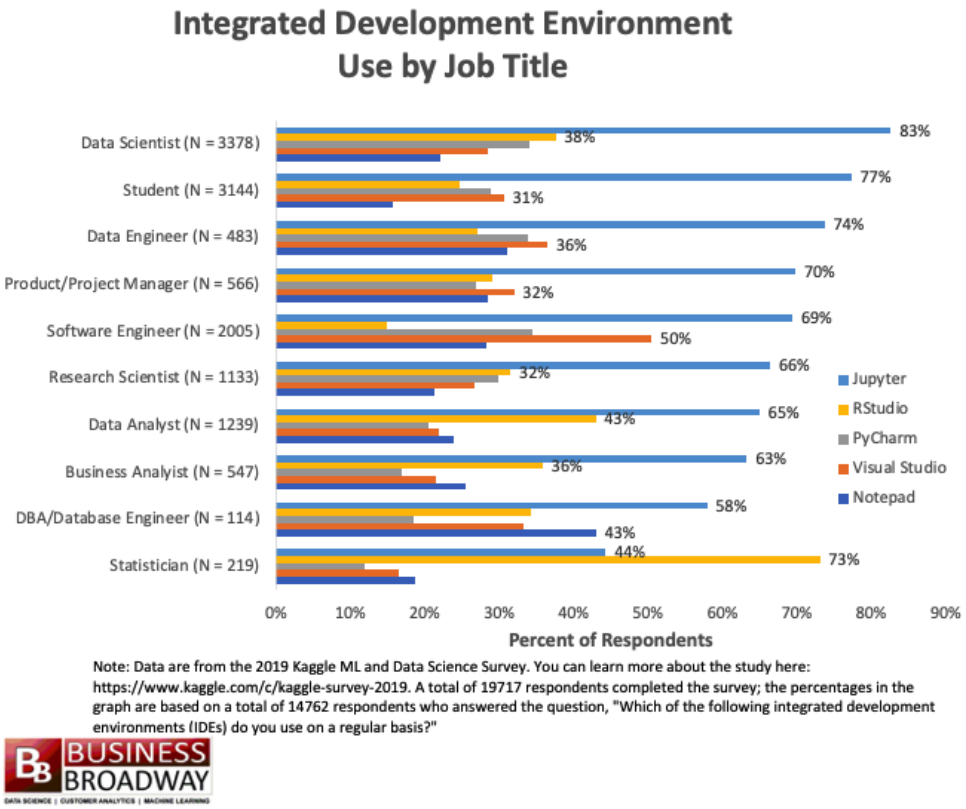

Figure 3: Integrated Development Environment by Job Title

However, other survey which is a more recent and real-time survey suggests that Visual Studio, Eclipse, VS Code, Android Studio and PyCharm are the top five IDEs. This survey considers the usage statistics along with google search count to determine the popularity of the IDE. The results of this survey can be seen in figure 4.

Worldwide, Oct 2021 compared to a year ago:

Rank	Change	IDE	Share	Trend
1		Visual Studio	29.27 %	+3.9 %
2		Eclipse	13.81 %	-3.0 %
3	↑	Visual Studio Code	11.87 %	+3.2 %
4	↓	Android Studio	9.57 %	-2.7 %
5		pyCharm	8.02 %	+0.4 %
6		IntelliJ	6.86 %	+0.9 %
7		NetBeans	5.01 %	+0.1 %
8	↑↑	Sublime Text	3.46 %	-0.3 %
9	↓	Xcode	3.46 %	-1.2 %
10	↓	Atom	3.09 %	-0.7 %

Figure 4: IDE Popularity index

References:

1. https://businessoverbroadway.com/2020/07/14/most-popular-integrated-development-environments-ides-used-by-data-scientists/
2. https://pypl.github.io/IDE.html

2. Briefly discuss five core features of Visual Studio 2019 Community Edition as an IDE:

Peek Definition: The developer can use the Peek Definition command to view and edit the code without switching away from the code that he is currently working on.

Refactoring: Refactoring of code like extracting methods, interface, reordering method parameters, removing parameters, encapsulating fields, renaming are supported.

One-Click Web Deployment: By clicking 'Publish', the developer can deploy ASP.NET, ASP.NET Core, Python or Node.js projects to a local folder, Microsoft Azure, IIS, FTP location, etc.

Multiple Frameworks Targeting: With the help of this feature, the developer can configure a single project to execute on multiple frameworks, like for example, the developer can target a project to execute on .NET Framework 4.6 and .NET Core 3.1 as well by simply configuring it accordingly.

Dependency Graphs and Code Maps: These types of files can be opened in read-only mode. The creation of these types of files is supported by higher versions of Visual Studio.

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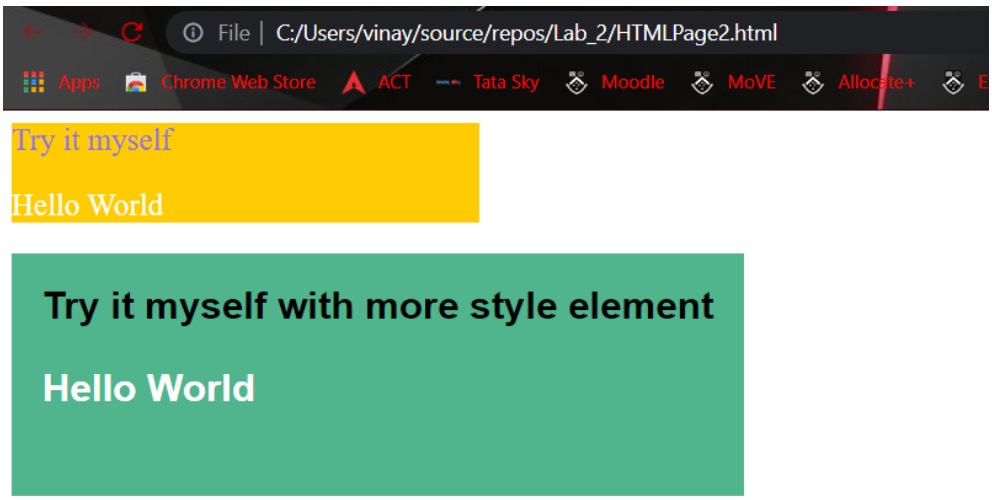
Task 2.1 (PASS AND CREDIT LEVEL):
Example of CSS and testing its responsiveness:

Code of the website using CSS:

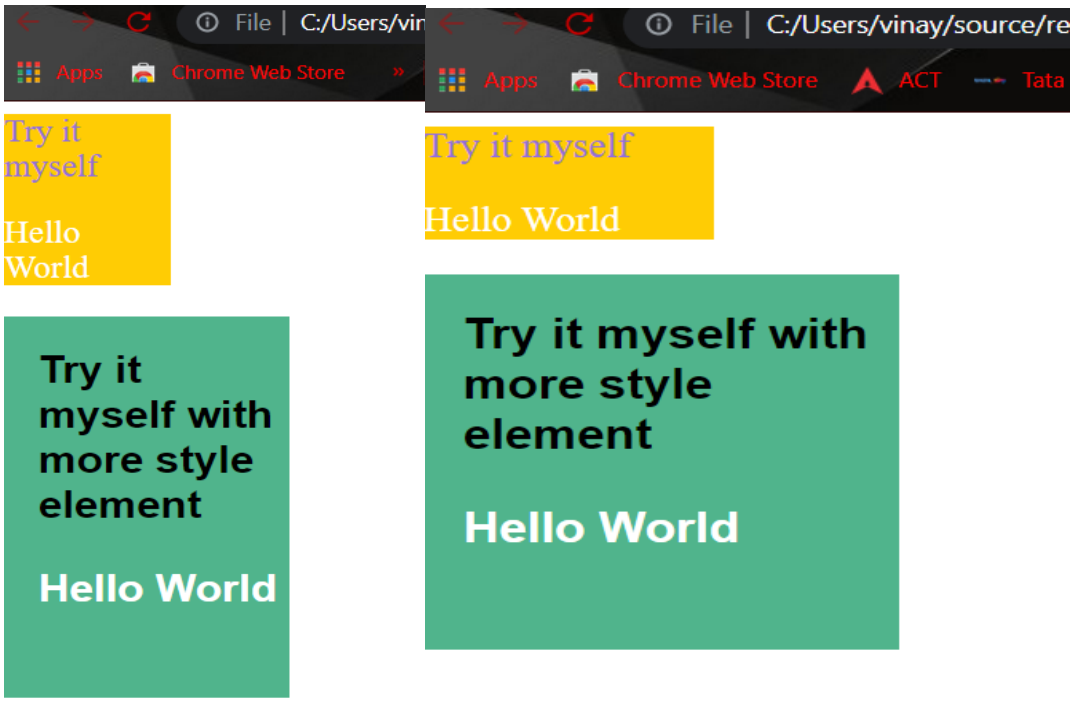
```
<html>
<head>
   <style>
      .preview {
         background-color: rgb(256,204,4);
         font-size: 20px;
         width: 20%;
      }

      .previewsecondLevel {
         color: mediumpurple;
      }

      p {
         color: white;
      }

      .preview2 {
         background-color: #50b48c;
         font-size: 25px;
         font-weight: bold;
         font-family: sans-serif;
         width: 30%;
         padding-top: 20px;
         padding-bottom: 30px;
         padding-left: 20px;
      }

      .preview2secondLevel {
         color: black;
      }
   </style>
 </head>
   <body>
      <div class="preview">
         <div class="previewsecondLevel">Try it myself</div>
         <p>Hello World</p>
      </div>
      <div class="preview2">
         <div class="preview2secondLevel">Try it myself with more style element</div>
         <p>Hello World</p>
      </div>
   </body>
</html>
```

Link to code repository:
https://github.com/KVD1302/weekly_activities_5032/tree/main/Week%202

Screenshot of the site on full screen (default):



Testing the Responsiveness at different sizes:



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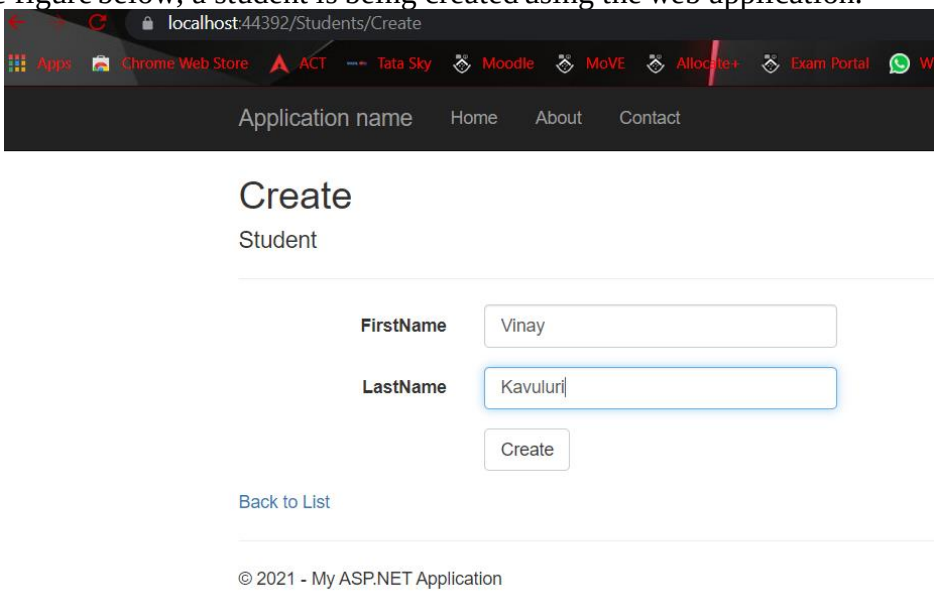
TASK 2.2 (DISTINCTION AND HIGH DISTINCTION LEVEL)

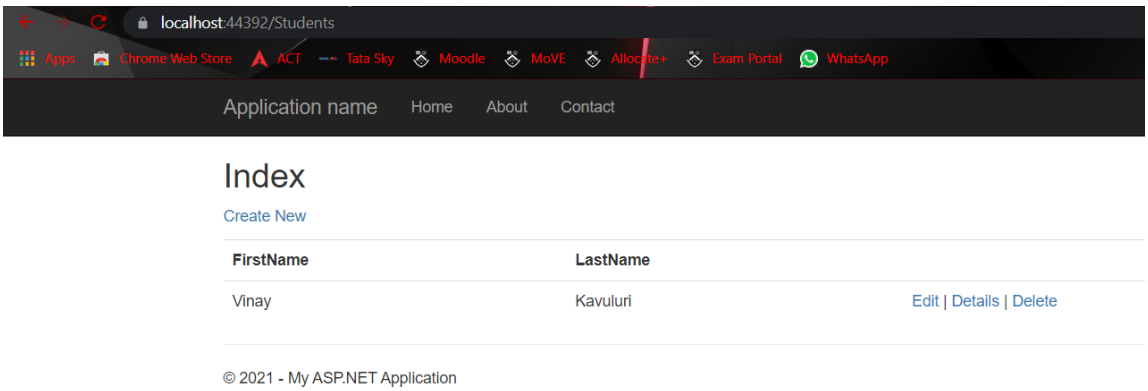
Database First Development of ASP.NET MVC Web Application using Visual Studio Scaffolding:

Screenshots of a running ASP.NET MVC Web Application:

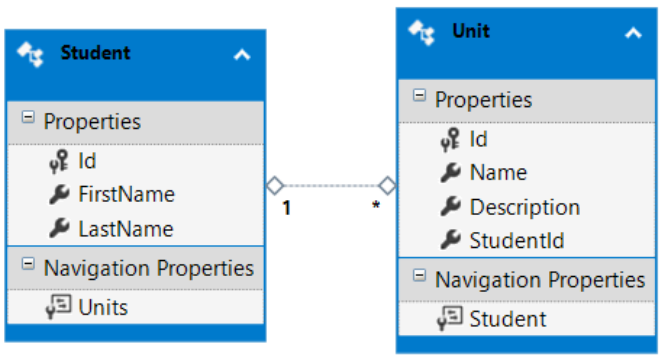
As seen in the figure below, a student is being created using the web application.



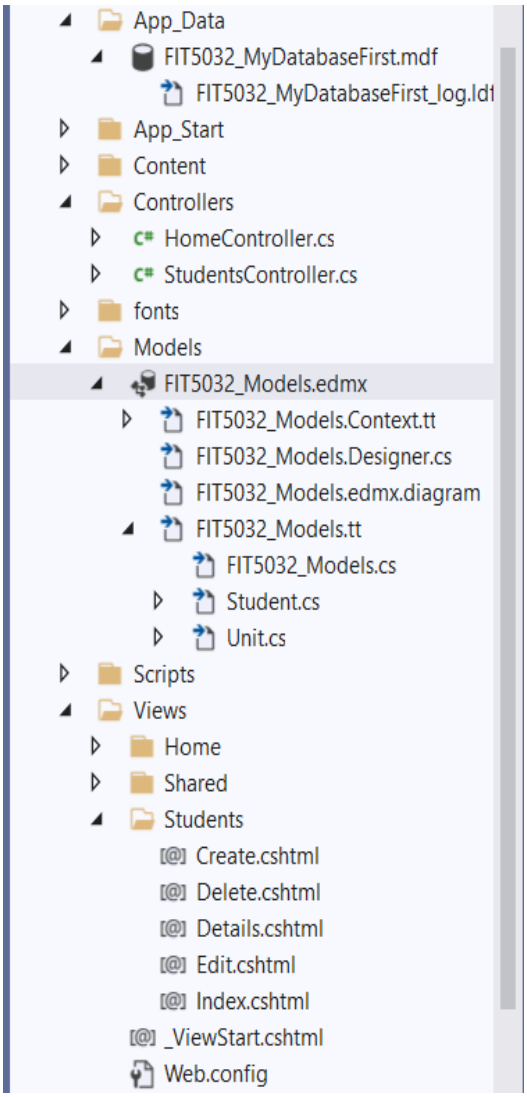
We can now see the created student's information in the list of students as seen in the image below.



Database schema structure:



Database controllers, models and CRED related webpages that are automatically generated from Schema are seen below.



Git repo link for the code:
https://github.com/KVD1302/weekly_activities_5032/tree/main/Week%202/FIT5032_MyDatabaseFirst