# **Chapter 4: Implementation**

Implementation is the phase where the actual system requirements are implemented. The code is written in this phase. The actual system is design and develop in this phase. This phase is one of the important phase in entire system development life cycle. Back end of the system is formed in this stage of system life cycle. Different kinds of tools are used for system implementation and different programming languages are chosen for backend programming.

For this project, Mark Sheet Generator I have used C#. Net Entity Framework programming language. As this is desktop application, C# is appropriate to develop any desktop application. C# programming language is fast in its execution speed, which saves time; object oriented which makes easier in maintenance of the system, scalable, structured programming language. So, C# is chosen in its backend programming language.

I have used Microsoft Visual Studio 2019 IDE to develop my system in C# .Net.

**Microsoft Visual Studio 2019 features:**

The following features enhance the performance of the IDE and contribute to work smoothly with no obstacles during system development.

* [**Visual Studio IntelliCode**](https://docs.microsoft.com/en-us/visualstudio/intellicode/) helps developer by use of artificial intelligence. It predict the possible class, variables while writing code.
* [**Debug**](https://docs.microsoft.com/en-us/visualstudio/ide/whats-new-visual-studio-2019?view=vs-2019#debug): Debugging is better as bugs are highlighted and navigated to specific values.
* Developer friendly environment is set up in this IDE.
* Easily Database connection can be made.