* 1. **INTRODUCTION TO PROJECT**

Nowadays, technology is just around the corner. Everyone can take advantage in using the latest demand of technology. The tremendous advance in technology has changed our life in many aspects. One of these aspects is online education and also called electronic learning. Online method of education is advantageous for many reasons. First of all, it is a very convenience. A human can use a computer access and Internet connection anywhere, for example, at home, outdoor or even on a bus. This benefit is especially important for people who live in remote ar rural areas and cannot relocate or commute to school. However, it is also useful for parents who want to study young children at home or any student who prefers to work in the comfort of their own home or coffee. Moreover, online learning is cheaper than traditional classroom academic or trade course. These courses are unpaid. Students can save money. For example, they do not have to pay for course of fees.

A Student (from some remote area where there are not so good institutions for higher studies) who wishes to excel in his/her respective field may have to go to some distant place in search for some good institute or he/she has to start studying through some correspondence. The basic problem with the Correspondence courses is that despite of being provided with good material student might not get their queries solved in time which may make them lose interest in that particular query/subject. As has rightly been said that “A stitch in time may saves nine”, so does this project is intended to do. It is not that no effort has been made towards this end. A lot of people tried their best in this field but either they were confined to only one particular subject or the tutorials were just one sided, like the teacher just passed on the text file to the server and student downloaded it to his system. This shortcoming is glaringly evident.

Keeping all this in mind, this project has been incorporated with the latest, speedy, inexpensive and easy to use features which can help the users to review and educate themselves online. It has been created to solve the day to day problems students, teachers, experts face in their fields. Thus it is meant for the very general audience that surfs internet regularly to enhance their knowledge.

**FEATURES OF STUDYTWEETS**

1. **Time Savings:** Students can "attend" a course at anytime, from anywhere. Course material is accessible 24-hours a day, 7 days-a-week and can be reviewed as many times as necessary.
2. **User friendly:** It provides highly user friendly environment to learners to do the searches. It easy to access the site so seeking learners can take advantage from it.
3. **Giving feedback**: It provides facility to users to give their feedback to the rest of the users about his experiences
4. **Providing information**: It tries its best to provide tutorials, articles, project, questions and their answer that would helpful to seeking learners.
5. **Cost Saving:** A cost savings will be realized by not having to pay for campus fees, parking fees, childcare, transportation and wardrobe.
6. **Maintenance:** It is highly easy and efficient to maintain.
7. **Data Access:** It provides for a very easy access to the huge amounts of data.
8. **Performance:** The overall performance of the site is very high since it has been created using the latest tools and technology available in the market.

**Overview Of .NET**

**Flavours of .NET:**

.NET is not a single technology. Rather it is a set of technologies that work together seamlessly to solve business problems. NET is an environment/platform designed especially for Internet applications although Desktop applications are also possible. It is not platform independent.

**Types of Applications can be developed:**

* **ASP.NET Web applications**: These include dynamic and data driven browser based applications.
* **Windows Form based applications**: These refer to traditional rich client applications.
* **Console applications**: These refer to traditional DOS kind of applications like batch scripts.
* **Component Libraries**: This refers to components that typically encapsulate some business logic.
* **Windows Custom Controls**: As with traditional ActiveX controls, you can develop your own windows controls.
* **Web Custom Controls**: The concept of custom controls can be extended to web applications allowing code reuse and modularization.
* **Web services**: They are “web callable” functionality available via industry standards like HTTP, XML and SOAP.
* **Windows Services**: They refer to applications that run as services in the background. They can be configured to start automatically when the system boots up.

**.NET Framework SDK:**

.NET has a complete Software Development Kit (SDK) that provides classes, interfaces and language compilers necessary to program for .NET. .NET Framework SDK is available FREE of cost.

**Development Tools:**

Integrated Development Environment (**IDE**) that allows for Rapid Action Development (RAD). The new Visual Studio.NET is such an IDE. VS.NET is a powerful and flexible IDE that makes developing .NET applications.

Some of the features of VS.NET are:

* Drag and Drop design.
* IntelliSense features.
* Syntax highlighting and auto-syntax checking.
* Excellent debugging tools.
* Integration with version control software such as Visual Source Safe (VSS).
* Easy project management.

**Visual Studio.NET Editions:**

* Professional
* Enterprise Developer
* Enterprise Architect

In addition to these editions, special language specific editions are available. They are:

* Visual Basic.NET Standard Edition
* Visual C# Standard Edition

**Features of .NET:**

* Rich Functionality out of the box.
* Easy development of web applications.
* OOPs Support.
* Multi-Language Support.
* Automatic memory management.
* Strong XML support.
* Security.

**Understanding the .NET Platform and its layers**

.NET is a framework that covers all the layers of software development above the Operating System. It provides the richest level of integration among presentation technologies, component technologies, and data technologies ever seen on Microsoft, or perhaps any, platform. Secondly, the entire architecture has been created to make it easy to develop Internet applications, as it is to develop for the desktop.

**Constituents of .NET Platform:**

The .NET consists of the following three main parts:

* **.NET Framework** – a completely re-engineered development environment.
* **.NET Products** – applications from MS based on the .NET platform, including Office and Visual Studio.
* **.NET Services** – facilitates 3rd party developers to create services on the .NET Platform.

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Remote user

over



Remote systems

over

Intranet/Internet

.NET

**Operating System**

Windows 2000/NT/98/Me – Others in

Fig.1.1- **.NET Platform Architecture**

**The Common Language Runtime (CLR):**

.NET applications are compiled to a common language known as Microsoft Intermediate Language or “IL”. The CLR, then, handles the compiling the IL to machine language, at which point the program is executed.

The CLR environment is also referred to as a managed environment, in which common services, such as garbage collection and security, are automatically provided.

**The .NET Class Framework:**

The next layer up in the framework is called the .NET Class Framework also referred as .NET base class library. The .NET Class Framework consists of several thousand type definitions, where each type exposes some functionality. All in all, the CLR and the .NET Class Framework allow developers to build the following kinds of applications:

* **Web Services**- Components that can be accessed over the Internet very easily.
* **Web Forms**-HTML based applications (Web Sites).
* **Windows Forms**-Rich Windows GUI applications. Windows form applications can take advantage of controls; mouse and keyboard events and can talk directly to the underlying OS.
* **Windows Console Applications**-Compilers, utilities and tools are typically implemented as console applications.
* **Windows Services**- It is possible to build service applications controllable via the Windows Service Control Manager (SCM) using the .NET Framework.
* **Component Library**- .NET Framework allows you to build stand-alone components (types) that may be easily incorporated into any of the above mentioned application types.