

# **Rukmini Devi Institute of Advanced Studies**

**Madhuban Chowk, Rohini, Delhi-110085**

**(Approved By AICTE & Affiliated With GGSIP  
University)**

## **DOSSIER**

**On  
Guest Lecture**

**On  
“ Dot Net”**

**On  
28<sup>th</sup> January, 2013**





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## FORM A

### Proposal:

- **Name of the event to be organized:** Guest Lecture on “Dot Net” Technology
- **Date:** 28<sup>th</sup> Feb, 2013
- **Time:** 12:30 PM-1:30 PM
- **Venue:** Lecture Theatre, RDIAS
- **Motivation for the activity:** This lecture was conducted with the motive to make the students of MCA aware of concepts of Dot Net Framework and its applications in creating web pages.
- **Organized by:** MCA Department



## **FORM B**

### **Part 1**

#### **Aim of the event:**

NET is an integral part of many applications running on Windows and provides common functionality for those applications to run. The .NET Framework is a software framework developed by Microsoft that runs primarily on Microsoft Windows. It includes a large library and provides language interoperability (each language can use code written in other languages) across several programming languages.

### **Part 2**

#### **Abstract:**

The session was conducted by Mr. RamRaksha Mishra, .Net Developer in Polygon Technologies Pvt. Ltd. The presentation contained the following discussion points:

1. What is .NET?
2. History of .NET Framework.
3. Features of .NET.
4. Architecture of .NET.
5. .NET Languages-VB.NET, ASP.NET, C#.
6. Web designing using .NET Languages.
7. Applications of .NET.

Many **real world anecdotes** were shared with the students in the course of this discussion:



Mr. Ram Raksha Mishra started the discussion by asking everyone present that, what according to them is .NET Technology?

Sir explained that .NET deals with the objects, It has highly demands in today industries in various types of softwares. Unlike conventional languages which are generally designed either to be compiled to native (machine) code, or to be interpreted from source code at runtime, It is intended to be compiled to a bytecode.

Sir further added that .NET has a complete Software Development Kit (SDK) - more commonly referred to as **.NET Framework SDK** – that provides classes, interfaces and language compilers necessary to program for .NET. Additionally it contains excellent documentation and Quick Start tutorials that help you learn .NET technologies with ease.

The following types of application can develop on .NET:

- 1. ASP.NET Web applications:** These include dynamic and data driven browser based applications.
- 2. Windows Form based applications:** These refer to traditional rich client applications.
- 3. Console applications:** These refer to traditional DOS kind of applications like batch scripts.
- 4. Component Libraries:** This refers to components that typically encapsulate some business logic.
- 5. Windows Custom Controls:** As with traditional ActiveX controls, you can develop your own windows controls.
- 6. Web Custom Controls:** The concept of custom controls can be extended to web applications allowing code reuse and modularization.
- 7. Web services:** They are “web callable” functionality available via industry standards like HTTP, XML and SOAP.



**8. 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.

**Dot Net has:**

- **Interoperability-** Because computer systems commonly require interaction between newer and older applications, the .NET Framework provides means to access functionality implemented in newer and older programs that execute outside the .NET environment.
- **Common Language Runtime engine-** The Common Language Runtime (CLR) serves as the execution engine of the .NET Framework. All .NET programs execute under the supervision of the CLR, guaranteeing certain properties and behaviors in the areas of memory management, security, and exception handling.
- **Language independence-** The .NET Framework introduces a Common Type System, or CTS. The CTS specification defines all possible datatypes and programming constructs supported by the CLR and how they may or may not interact with each other conforming to the Common Language Infrastructure (CLI) specification. Because of this feature, the .NET Framework supports the exchange of types and object instances between libraries and applications written using any conforming .NET language.
- **Base Class Library-** The Base Class Library (BCL), part of the Framework Class Library (FCL), is a library of functionality available to all languages using the .NET Framework. The BCL provides classes that encapsulate a number of common functions, including file reading and writing, graphic rendering, database interaction, XML document manipulation, and so on. It consists of



classes, interfaces of reusable types that integrates with CLR(Common Language Runtime).

- **Simplified deployment-** The .NET Framework includes design features and tools which help manage the installation of computer software to ensure it does not interfere with previously installed software, and it conforms to security requirements.
- **Security-** The design addresses some of the vulnerabilities, such as buffer overflows, which have been exploited by malicious software. Additionally, .NET provides a common security model for all applications.
- **Portability** - While Microsoft has never implemented the full framework on any system except Microsoft Windows, it has engineered the framework to be platform-agnostic, and cross-platform implementations are available for other operating systems. Microsoft submitted the specifications for the Common Language Infrastructure (which includes the core class libraries, Common Type System, and the Common Intermediate Language), the C# language, and the C++/CLI language to both ECMA and the ISO, making them available as official standards. This makes it possible for third parties to create compatible implementations of the framework and its languages on other platforms.



### **Part 3**

#### **Conclusion**

It is important for the students to be well acquainted with the field and should be aware of the intricacies of implementing this technology. Keeping this in mind a guest lecture was organized for the students of MCA.

Mr. Ram Raksha Mishra then outlined and explained about .Net framework 4 CLS- compliant languages:

- Microsoft VB.Net
- Microsoft Visual C#
- Microsoft Visual C++.Net
- Microsoft Visual J#.Net

Sir seamlessly swayed from architecture to implementation while referencing the industry scenario. Also discuss the latest research going in this technology. Certain issues related with the implementation of the technology like privacy, security, compliance, availability, performance and sustainability were also discussed.

Students of MCA showed great enthusiasm by attending the session and actively participating in question answer sessions. Some curious questions were raised by the students like, what is a security key in





.NET?, How the garbage collection is implemented in .NET. All were answered by the speaker in a very explicable manner.

### Lecture Moments



**Speaker for the event..!!**



**Patient Audience..!!**



**Interrogation session..!!**