III Year B.Tech. CSE II - Semester	L	T	P	To	C
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CS324 MIDDLEWARE TECHNOLOGIES

Course Description & Objective:
The main objective of this course is to get on awareness of a the various technologies which can help in the implementation of the various live project

Course Outcome:
Upon completion of the subject, students will be able to:

- Understand the basic structure of distributed systems;
- Understand the motivation of using middleware;
- Understand the basic concepts underlying the ASP.net and C#.net;
- Learn to make judgment in choosing a suitable middleware for application problems;
- Understand the basic concepts of Web Services and EJB.

UNIT I- Emergence of Middleware
Introduction,Objects, Web Services,Middleware Elements,Vendor Architecture,interoperability,Middleware in distributed applications, Types of Middleware,RMI, JDBC,Client/Server CORBA Style.

UNIT II - ASP.NET
Introduction,Lifecycle,ServerControls,Basic Controls,Directives,Validators, Database Access,ADO.Net,File Uploading, Data Sources, Data Binding,Custom Controls,Security,Data Caching,Multithreading, Deployment.

UNIT III - Fundamentals of C#& .NET platform
Comprehensive .NET Assemblies.OOPs with C#,Attributes, Reflection, Properties,Indexers ,Delegates ,Events,Collections, Generics, Anonymous Methods, Unsafe Codes and Multithreading

UNIT IV - Web Services

Introduction,Architecture, Components,Security,XML Web Service Standards,Creating Web Services,Extending Web Services, Messaging Protocol,describing,discovering,securing

UNIT V - EJB

Java Bean Component Model,EJB Architecture,Session Bean,Java Message Service,Message Driven Bean,Entity Bean

TEXT BOOKS:

1. WortgangEmmerichJohn,"Engineering Distributed Objects", Wiley, 2000.
2. Mesbah Ahmed, Chris Garrett, Jeremy Faircloth, Chris Payne, DotThatCom.com, "ASP.net web developer guide",Wei Meng Lee (Series Editor),Jonothon Ortiz (Technical Editor),Syngress Publications, 2001.

REFERENCE BOOKS:

1. Andrew Troelsen, "C# and the .NET Platform",Apress Wiley-dreamtech, India Pvt.Ltd, 2011.
2. ".NET Web Services-Architecture and Implementation", Keith Ballinger, Pearson Education, 2002.