

COURSE CODE	COURSE TITLE	L	T	P	C
1152CS131	BUILDING ENTERPRISE APPLICATIONS	3	0	0	3

Course Category: Program Elective

A. Preamble:

Enterprise applications are typically designed to interface or integrate with other enterprise applications used within the organization, and to be deployed across a variety of networks (Internet, Intranet and corporate networks) while meeting strict requirements for security and administration management.

B. Prerequisite Courses:

Sl. No	Course Code	Course Name
1	1151CS117	Java Programming
2	1151CS302	Java Programming Lab
3	1151CS111	Computer Networks
4	1151CS305	Computer Networks Lab

C. Related Courses:

Sl. No	Course Code	Course Name
1	1151CS202	Internet Programming
2	1156CS601	Minor Project
3	1156CS701	Major Project

D. Course Educational Objectives:

Students undergoing this course are expected

- To understand requirements validation, planning and estimation.
- To design and document the application architecture.
- To understand the importance of application framework and designing other application components.
- To perform Code review, Code analysis, build process.
- To understand different testing involved with enterprise application and the process of rolling out an enterprise application.

E. Course Outcomes

Students undergoing this course are able to:

CO Nos.	Course Outcomes	Level of learning domain
CO1	Familiarize with concept of Enterprise Analysis and Business Modeling.	K2
CO2	Understand requirements validation, planning and estimation.	K2
CO3	Understand the importance of application framework and designing other application components.	K2
CO4	Perform Code review, Code analysis, build process.	K3
CO5	Understand different testing involved with enterprise application and the process of rolling out an enterprise application.	K2

F. Correlation of COs with Programme Outcomes:

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO 1	PSO 2	PSO 3
CO1	M					M						L		L	
CO2		M	M										L		L
CO3	M					L		L						M	M
CO4		M	L	L	L		L		L	L	L			M	M
CO5	M	L		M	H	L						L			

G. Course Content:

UNIT I-ANALYSIS AND MODELING

9

Introduction to enterprise applications and their types - software engineering methodologies - life cycle of raising an enterprise application - introduction to skills required to build an enterprise application - key determinants of successful enterprise applications and measuring the success of enterprise applications - inception of enterprise applications - enterprise analysis - business modeling - requirements elicitation - use case modeling - prototyping.

UNIT-IIARCHITECTURAL DESIGN

9

Nonfunctional requirements - requirements validation - planning and estimation - concept of architecture - views and viewpoints - enterprise architecture - logical architecture - technical architecture – design - different technical layers - best practices - data architecture and design – relational, XML, and other structured data representations.

UNIT-III COMMUNICATION AND INFRASTRUCTURE

9

Infrastructure architecture and design elements - Networking, Internetworking, and Communication Protocols - IT Hardware and Software – Middleware - Policies for Infrastructure Management - Deployment Strategy - Documentation of application architecture and design.

UNIT-IV CONSTRUCTION AND REVIEW

9

Construction readiness of enterprise applications - defining a construction plan - defining a package structure - setting up a configuration management plan - setting up a development environment - introduction to the concept of Software Construction Maps - construction of technical solutions layers - methodologies of code review, static code analysis, build and testing.

UNIT-V TESTING AND ROLL OUT

9

Dynamic code analysis – code profiling and code coverage - types and methods of testing an enterprise application - testing levels and approaches - testing environments - integration testing - performance testing - penetration testing - usability testing - globalization testing and interface testing - user acceptance testing - rolling out an enterprise application.

Total: 45 Hours

H. Learning Resources

i) Text Books

1. Anubhav Pradhan, Satheesha B. Nanjappa, Senthil K. Nallasamy, VeerakumarEsakimuthu, “Raising Enterprise Applications”, First Edition, Wiley India Pvt. Ltd, 2010
2. Brett McLaughlin, “Building Java Enterprise Applications”, First Edition, O’Reilly Media publications, 2002.

ii) Reference Books

1. Soren Lauesen , “Software Requirements: Styles & Techniques”, First edition, Addison-Wesley Professional publications, 2002
2. Brian Berenbach, Daniel J. Paulish, JuergenKazmeier, Arnold Rudorfer, “Software Systems Requirements Engineering: In Practice”, First Edition, McGraw-Hill/Osborne Media publications, 2009
3. Dean Leffingwell, Don Widrig , “Managing Software Requirements: A Use Case Approach”, First Edition, Pearson publications, 2003
4. Varma Vasudeva, “Software Architecture: A Case Based Approach”, First Edition, Pearson publications, 2009.
5. Srinivasan Desikan, Gopaldaswamy Ramesh, “Software Testing Principles and Practices “, First Edition, Pearson publications, 2006
6. Software Testing Principles and Practices, Oxford University Press

iii) Web References

1. http://java.sun.com/blueprints/guidelines/designing_enterprise_applications_2e/