

**20CSE03 - BUILDING ENTERPRISE APPLICATIONS**

Programme & Branch	B.E. – Computer Science and Engineering	Sem.	Category	L	T	P	Credit
Prerequisites	NIL	5	PE	3	0	0	3

Preamble	This course offers an insight into enterprise application development and deployment.
Unit - I	Analysis and Modeling
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 – Measuring the success of enterprise applications. Inception of enterprise applications – Enterprise analysis – business modelling – requirements elicitation – use case modelling – prototyping – Non functional requirements – requirements validation – planning and estimation.	
Unit - II	Architecting and Designing
Concept of architecture – Views and viewpoints – Enterprise architecture – Logical architecture – Technical architecture and Design, Different technical layers, Object – Oriented Analysis and Design – Best practices – Data architecture and design – relational, XML, and other structured data representations.	
Unit - III	Architectural Design
Technical architecture – 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
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. Dynamic code analysis – code profiling and code coverage.	
Unit - V	Testing and Rolling out Enterprise Applications
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.	

Lecture:45 Total:45**TEXT BOOK:**

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| 1. | Anubhav Pradhan, Satheesha B. Nanjappa, Senthil K. Nallasamy, Veerakumar Esakimuthu, “Raising Enterprise Applications”, 1 st Edition, Wiley India Pvt. Ltd., 2010. |
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REFERENCES:

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| 1. | Brett McLaughlin, “Building Java Enterprise Applications”, 1 st Edition, O’Reilly Media Publications, 2002. |
| 2. | Soren Lauesen, “Software Requirements: Styles & Techniques”, 1 st Edition, Addison-Wesley Professional Publications, 2002. |



COURSE OUTCOMES: On completion of the course, the students will be able to		BT Mapped (Highest Level)
CO1	apply the concepts of enterprise analysis and business modelling for an application	Applying (K3)
CO2	design and document the application architecture.	Applying (K3)
CO3	determine the importance of application framework and design application components.	Applying (K3)
CO4	perform code review, code analysis and build process to implement enterprise applications.	Applying (K3)
CO5	illustrate various testing strategies and deploy enterprise applications.	Applying (K3)

Mapping of COs with POs and PSOs

COs/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	2	1										3	1
CO2	3	2	1										3	1
CO3	3	2	1										3	1
CO4	3	2	1										3	1
CO5	3	2	1										3	1

1 – Slight, 2 – Moderate, 3 – Substantial, BT- Bloom's Taxonomy

ASSESSMENT PATTERN - THEORY

Test / Bloom's Category*	Remembering (K1) %	Understanding (K2) %	Applying (K3) %	Analyzing (K4) %	Evaluating (K5) %	Creating (K6) %	Total %
CAT1	20	40	40				100
CAT2	20	40	40				100
CAT3	20	40	40				100
ESE	20	40	40				100

* ±3% may be varied (CAT 1,2,3 – 50 marks & ESE – 100 marks)