

Software Architecture - Do & Describe

Advanced course on Architecture- Principles, Tactics and Description

25-29 May 2004

Bangalore



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Introduction to course contents

Architecture based development has become the only way to build complex systems. There exists a significant body of knowledge on Architectural Frameworks, Architecture Descriptions and most recently Architecture Driven Methodologies and tactics for applying quality attributes.

However, Architecture, for most us, is still alchemy. The literature addresses describing and communicating architectures. There is a huge gap in terms of how to produce architectures - in other words, how does one translate a complex business need into a robust business system?

In this context, the major challenges confronting the software industry are the following:

- How do we integrate Architecture Driven Development and the Software Engineering processes and methodologies?
- How do we produce architectures? What are the principles, techniques and tactics, architecture? How do we go from Solution Architecture to a delivered code?
- How do we describe Architectures - to the stakeholders, clients, managers, business analysts, programmers, project managers and so on?
- How do we verify and validate the quality of architectures?

This unique course aims to fulfill this gap by addressing the above challenges. It provides an end-to-end spectrum of the craft of Architecture Design. The course provides specific techniques and tactics using real world examples and case studies on the following aspects of architecture:

- Architecture Descriptions, Frameworks, Documenting Architectures, Architecture Styles, Architecture Views and View Sets
- Solution Architecture
- Business Process Modeling and Requirements Engineering
- Non-Functional requirements and Quality attributes
- Reliability, Availability, Supportability and Performance Modeling of complex systems
- Quality Engineering and validating Architectures

Pre-requisites and who the course is for

The course is meant for practicing architects with several years of solid experience in the area of software architecture and systems development. The participants are preferably system architects, working in technical pre-sales, documenting and communicating architectures to business and technical teams with solid experience in component design, architectural frameworks, architectural patterns and styles etc.

The course is not meant for entry-level programmers and non-technical project managers. Since the course assumes a significant technical bandwidth and conceptual knowledge -- people without such experience may not be able to benefit from the course. We also assume a thorough knowledge of translating architectures and operational zing them into J2EE, .NET etc.

Some of the Topics covered in the course

The following is a list of topics that will be covered in the course.

- Architecture Methods
- Performance
- Availability Scalability and Integration
- Describing Software Architecture
- Architecture Views, View Sets

- Architecture Frameworks
- Architecture Description Standards
- Quality Engineering and Testing

About the instructors

Prof T V Prabhakar, Dept. Of Computer Science, IIT-Kanpur: Prof Prabhakar has more than 20 years of teaching and research experience in various areas of computer science. His areas of research are database systems, software engineering and software architecture

Mr. Nagaraju Pappu is currently working as a visiting faculty at IIT-Kanpur. He has more than 12 years of experience in building large scale applications He now works as an independent consultant in the areas of software architecture He specializes in software architectures for distributed applications and performance modeling of large scale applications.

Course Fees:

Fees: Rs.9,000/- (demand draft only, payable to Coordinator, Short course on Software Architecture, Payable at Kanpur)

Group Registrations: For a team of three or more from the same company there is a discount of Rs. 1000/- For Educational and Government Organizations: the Registration fee is Rs.7000/-

The fee includes Course Material, lunch and refreshments.

Important Dates:

Course Dates: 25th - 29th May'04 (6 hours per day, 10AM - 5PM)

Last Date for Registration: 10th May'04

The number of seats is restricted and you are advised to register early to avoid disappointment.

The course will be held in Bangalore at an appropriate venue.

Registration Details:

Please complete the following details and mail it to the address given at the end.

Name and Designation:

Job Description:

Company Name and Address:

Contact Address and Phone Numbers:

Email Address:

Payment Details:

Mail the form to:

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