

## Model Driven Software Design Training Program

An Industry-oriented Training Program for Software Engineers

### What is this Program about?

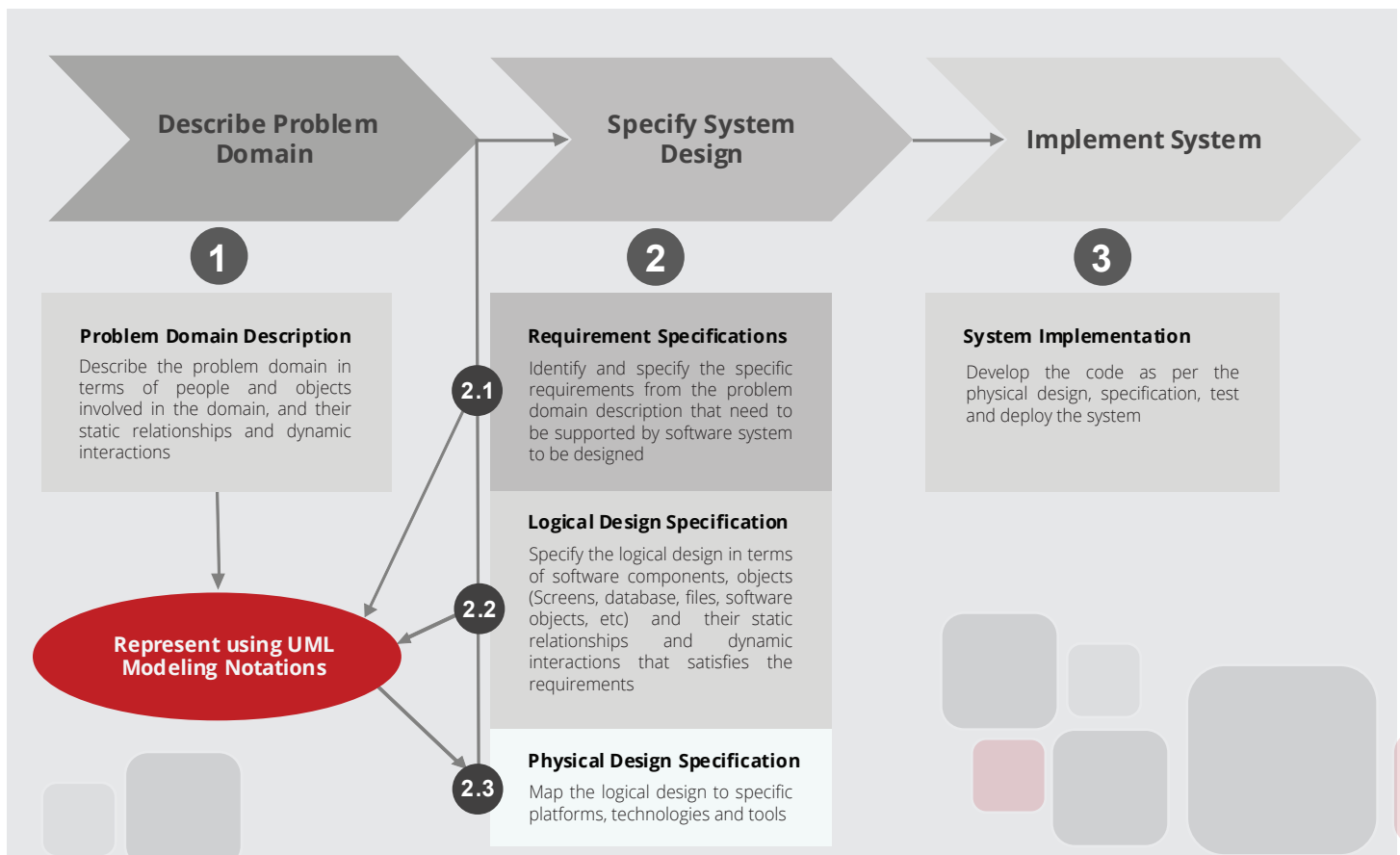
The **"Model Driven Software Design Training Program"** is industry-oriented design training program, for aspiring software engineers. It is intended to trigger "design thinking" in the students and prepare them for the demands of the industry and help them become successful engineers.

Software engineers face many challenges in building a software systems in today's fast paced and dynamic business scenarios. Some of the common challenges include:

- ⦿ To develop software under aggressive time schedules without compromising on the quality goals
- ⦿ To quickly adapt existing systems to support new business scenarios

- ⦿ To adapt to continuously changing technology landscape
- ⦿ To understand the needs of the end users of a software system (who are often non-technical) and be able to translate that into a technical specifications and implementation

In such a scenario, a software engineer can no longer rest contented being a specialist in few computer languages and tools. Programmers need to evolve into software engineers. There is a need for a paradigm shift - the software engineers are expected to be problem solvers with ability to "Design" and "Implement" software systems. A software engineer is expected to create flexible and extensible programs that can be quickly adapted to the dynamic changes in the business with zero or minimal coding



## Program Content

The content is based on key concepts and principles crystallized from industry standards related to software architecture and design such as 'Model Driven Architecture' (MDA) and 'Unified Modeling Language' (UML) from OMG ([www.omg.org](http://www.omg.org)), 'Architectural Description for Software Intensive Systems' (IEEE 1471) from IEEE (<https://standards.ieee.org>) and others.

The program is designed to be a natural/logical extension of the related topics learnt by the student as per the curriculum.

The program is designed to help the student to assimilate the design methodology, design principles and concepts and put it to practice through real-life examples and hands-on exercises. The student will be assessed through a hands-on project from 'concept to code'.

The program covers the following key subject areas:

- Model Driven Software Development Process – This topic will provide the student a clear understanding of the concepts and principles behind model driven approach to software development.
- Domain Modeling – This is the first step in the software design process. This is also referred to as Compute Independent Model (CIM). The student is introduced to the key concepts and principles of domain modeling using UML notations, in an interactive manner with real-life examples and hands-on exercises.
- Platform Independent Design Model – This is the second step in the software design process. This is also referred to as the Platform Independent Model (PIM). The primary focus is to ingrain into the student's mind the process of arriving at logical design specifications that is independent of any software technologies and tools. The student is introduced to the design modeling using UML notations (use cases, entity models, timing / sequence diagrams, etc), in an interactive manner with real-life examples and hands-on exercises. Student is also introduced to the concept of 'Design Patterns' as a software reuse strategy.
- Platform Specific Design Model – This is the third step in software design process. This is also referred to as Platform Specific Model (PSM). The primary focus is to ingrain into the student's mind the process of mapping the platform independent design specification to platform specific design specifications. The student is introduced to the key concepts and principles in an interactive manner with real-life examples and hands-on exercises.
- Hands-on project – Based on a real-life customer requirements, the student will independently arrive at a design of a software system based on the knowledge acquired in the training program. The student will be assessed based on the design specifications document prepared



## What is the Program Structure?

The program is highly flexible and can be tailored based on the academic background of the participating students and needs of an organization.

The standard program modules are designed for students and fresh engineers

Module	Training Hours	Period (days)	Participant Profile
Module 1	25	15	Ideal for Students and fresh engineers with minimal software programming experience
Module 2	15	5	Software Engineers with about 1 – 2 year of programming experience in the industry
Module 3	10	2	Software engineers with 2+ years of programming experience in the industry

## Who can participate?

- Any candidate with hands-on experience in successfully developing and deploying simple applications in any programming language (preferably Java) involving GUI and database programming.
- Students in final or pre-final year of BE, B Tech courses in Computer Science, Electronics or Information Science disciplines and students in the final year of MCA course

## What is the Program Fee?

The program fee depends up on the specific needs of the organization and the participants, in terms of customization of the content, location of training, and participant profile. Please send your enquiries to our contact email or phone. Our representative will get in touch with you to understand your needs and provide you the best quote.

## Reach us

We are your trusted partner! Reach out to us for all your Enterprise Architecture Consulting and training needs

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