

4/10/2018

# Domain Driven Design

Hands on Workshop Training Proposal

Presented to

**Contact Person**

**Company**

**Address**



METAMAGIC GLOBAL INC, NJ, USA



## Domain Driven Design – 1 Day Workshop

### Executive Summary

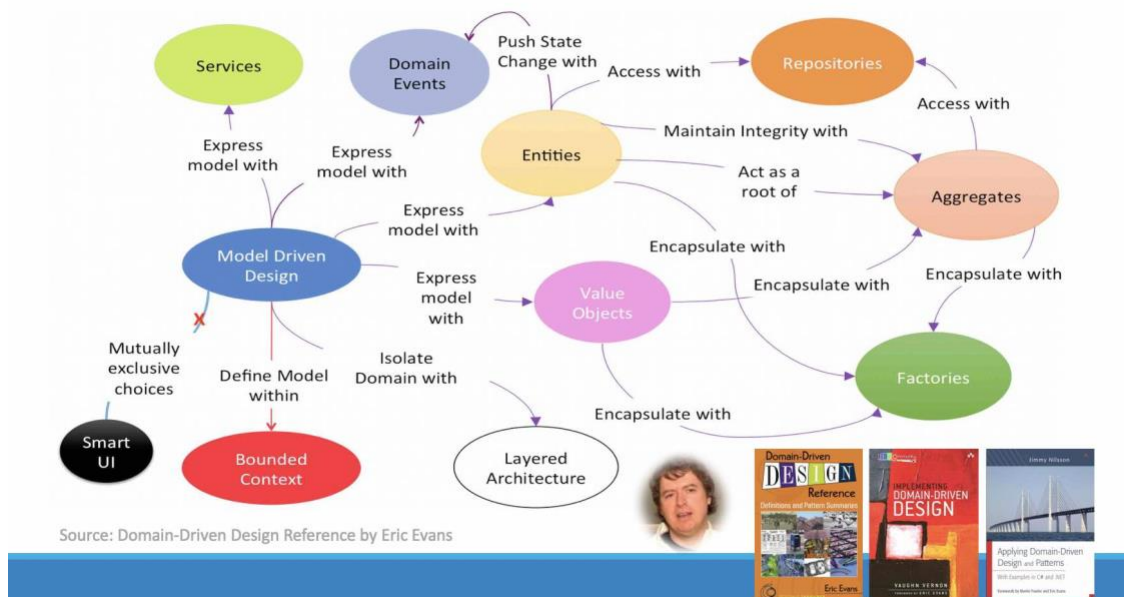
Domain Driven Design<sup>1</sup> is an approach to the development of Complex Software in which we

1. Focus on the Core Domain
2. Explore models in a creative collaboration of Domain Experts and software Architects.
3. Speak a Ubiquitous Language within an explicitly Bounded Context.

Domain Driven Design is divided into two

1. Strategic Design
2. Tactical Design

## Domain Driven Design



<sup>1</sup> [http://domainlanguage.com/wp-content/uploads/2016/05/DDD\\_Reference\\_2015-03.pdf](http://domainlanguage.com/wp-content/uploads/2016/05/DDD_Reference_2015-03.pdf)

## Target Audience

- Developers / Sr. Developers
- Architects / Sr. Architects
- Business Analysts
- Engineering Directors / CIO

## Course Contents

- |                                  |                            |
|----------------------------------|----------------------------|
| 1. Domain Driven Design Concepts | 8. Aggregates              |
| 2. Strategic Design              | 9. Entities & Value Object |
| 3. Tactical Design               | 10. Repository             |
| 4. Core Domain and Sub Domains   | 11. Factory                |
| 5. Bounded Context               | 12. Domain Events          |
| 6. Context Map                   | 13. Domain Service         |
| 7. Ubiquitous Language           | 14. Anti-Corruption Layer  |

## Objectives

1. Understand the Domain Driven Design Concepts
2. Understanding Core Domain and Sub Domains
3. Understanding Strategic Design and Tactical Design
4. Understanding the importance of Ubiquitous Language
5. Understanding Bounded Context
6. Understanding Context Map
7. Understanding Aggregates, Aggregate Root
8. Understanding Entities and Value Objects
9. Understanding Repositories and Factory Pattern
10. Understanding Domain Events
11. Understanding Domain Service
12. Understanding Anti-Corruption Layer
13. Understanding Event Storming

## Pre-requisites for Developers / Architects

- Java or C# Programming Language
- Design Patterns

## Course Content Details – Domain Driven Design

### 1. DDD: Strategic Design

1. Core Domain and Sub Domain
  - a. Understanding Core Domain
  - b. What's a Sub Domain?
  - c. Types of Sub Domain
2. Understanding Requirement Analysis
3. Bounded Context
  - a. Identifying Boundaries
  - b. Dealing with Complexity
4. Context Map
  - a. Partnership
  - b. Shared Kernel
  - c. Customer Supplier
  - d. Conformist
  - e. Anti-Corruption Layer
  - f. Open Host Service
  - g. Published Language
  - h. Separate Ways
  - i. Big Ball of Mud
5. Ubiquitous Language

### 2. DDD: Tactical Design

1. Entities
2. Value Objects
3. Aggregate Root
4. Domain Service
5. Domain Events
6. Factories
7. Repositories
8. Integrating Bounded Contexts

### 3. Event Storming and Domain Events

1. Object Modelling to Process Modelling
2. Domain and Integration Events
3. Business Solution and Business Process
4. Capability Centric Design
5. Event Storming Concept

6. Event Storming: Restaurant Dining Example
7. Event Storming: Shopping Portal
8. Event Storming: Movie Booking Portal
9. Event Storming: Movie Streaming Portal

#### 4. Implementation Design Guidelines

1. Web Services: RESTful Guidelines
2. Hexagonal Architecture – Ports and Adapters
3. Mapping Ports and Adapters to DDD
4. Repositories: Implementation Guidelines

#### 5. Hands-on-Workshop

1. Shopping Portal Application
2. Monolithic to Microservices Migration
3. Authentication
4. Product Catalogue
5. Shopping Cart
6. Order Processing

## Infrastructure Requirements

- Linux Workstation (Ubuntu)
- Java - <http://www.oracle.com/technetwork/java/javase/downloads/jdk8-downloads-2133151.html>
- Eclipse / Maven - <https://maven.apache.org/install.html>
- Spring Tool Suite - <https://spring.io/tools/sts/all>
- Databases: PostgreSQL / Mongo DB / Redis
- Netflix OSS (Ribbon, Hystrix, Eureka, Zuul) /
- Rx Java v2.0
- Spring Boot / Docker Containers
- NPM/Node - <https://nodejs.org/en/>
- Angular CLI - <https://cli.angular.io>
- Hardware – 16 GB RAM (Preferred) & 256 GB HDD, Intel i5 or i7 CPU
- Internet Connection

### **Mr. Araf Karsh Hamid: Co-Founder / CTO, MetaMagic Global, NJ, USA**

Araf Karsh has with over 25 years of experience leading the design and development of mission-critical, object-oriented and web-based applications for premier organizations including Bank of America, CIBC, Johnson & Johnson, Kaiser Permanente, the U.S. Department of State, and the U.S. Dept of Energy. Karsh has an established track record leading production software organizations and bringing new products to market using leading edge technology.

He has extensive knowledge of service-oriented architecture, Micro Services, Containers (Docker), Blockchain and key foundational technologies. He is well versed in building highly scalable and high performance distributed applications using Java technologies.

Training, mentoring and motivating his people is his first passion. He says chess taught him the importance of doing this, a pawn (or a rookie) can become the king when it reaches the other end, the challenge is to take it that far. But he is also known to demand a lot from his teams and again he uses a chess metaphor to explain that the worst enemy of a strategist is the clock.

Karsh focuses on Designing & Architecting innovative solutions for business problems which will be cost effective while using leading edge technologies. He uses his leadership skills in team building, technology research, while managing the creative aspect of software building, motivating and empowering team members to come up with new innovative solutions.

### **Mr. Ketan Gote: Co-Founder / CDO, MetaMagic Global, NJ, USA**

After getting his Masters in software development from Pune, Ketan started developing software products for a security provider. As he likes to call himself, he is a full-stack guy and security provided him the opportunity to work the entire stack and come up with pervasive and sustainable security designs and products.

Ketan joined IBM and worked on large projects servicing customers in North America. He worked across multiple products and technologies and started specializing in SOA and scalable architectures. He put this expertise to use to help customers translate futuristic concepts into real-world solutions and before he knew, he was the resident SME for a whole lot of things for his team and clients.

While Ketan is a hard-core techie at heart, he realized he had a strong desire to share his knowledge and ideas to brain-storm, train and mentor. And as things turned out, he has the skill to do so too and rose rapidly in the organization, taking on a mix of technical and people management responsibilities. His knowledge sharing includes both in-person and blogging for the community at large.

## Fees, commercial terms and contact information

### Contact Person

MetaMagic Global Inc. /  
BetaMagic Global Pvt Ltd.  
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Magarpatta City Road,  
Pune, 411028  
Email: [arivu@metamagic.in](mailto:arivu@metamagic.in)

### Payment Terms

- 100% Advance

### Post Workshop Support

- MetaArivu Forum Support – Life long
- 4 hours of Video conferencing after the training to resolve any technical queries.
- All the participants can join our forum to ask questions and share their thoughts. This is available on an on-going basis without any fee. All participants should take maximum advantage of this as they will see a lot more here than just answers to their queries and become part of a community.
- In addition, as the participants put their learning to use in real-life scenarios, they can use the expertise of our team to validate their ideas or high level architecture. This special facility is offered for a maximum of four hours of

### Course Pricing Details

| Participants | Amount / Participant |
|--------------|----------------------|
| <=15         | Rs. 20,000/-         |
| 16 – 20      | Rs. 15,000/-         |
| 21 – 50      | Rs. 10,000/-         |

Minimum 8 participants for the workshop. If the number is less than 8 participants, then the entire 1 Day workshop will cost Rs. 1.5 Lakhs.

### Training at Customer Premise

- All the necessary infrastructure requirements will be setup by the customer.

### Other costs

- For Mumbai: Travel and stay on actuals if the participants number is less than 15.
- For Pune: No Travel costs
- Other Cities: Travel and stay on actuals.
- All taxes, levies and duties as applicable will be charged separately and payable by the client organization.

email/telephonic support (includes the time needed by our team to review and understand your artefacts and questions) over a period of 45 calendar days from the last date of the program. Please note this is a 'use it or lose it' and cannot be rolled over to a future period. To make best use of this, you can appoint one participant as a coordinator for queries emanating from your team to consolidate and prioritize your discussion points with our team.

- If you need further help with detailed architecture, design, development or testing cycles or additional training, please reach out to your relationship manager at MetaMagic for a separately priced service.