

## GMF COURSE CONTENT



The Eclipse Graphical Modeling Framework (GMF) provides a generative component and runtime infrastructure for developing graphical editors based on **EMF** and **GEF**. The project aims to provide these components, in addition to exemplary tools for select domain models which illustrate its capabilities.

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# Graphical Editing/Modelling Framework Training Program

## Course Overview

The Eclipse Graphical Modeling Framework (GMF) provides a generative component and runtime infrastructure for developing graphical editors based on EMF and GEF. In this course we explore how to create a Domain Specific Graphical Editor using GMF.

## Audience

This course is meant for Developers (Team Members, Project Leads and Managers) with advanced programming knowledge in Java.

## Prerequisites

- Strong knowledge of Java and XML.
- Should have hands on developing Eclipse plugins.
- Knowledge of EMF would be helpful.

## Duration and Additional Information

- It is a 2 Day Program and extends upto 8hrs each day. Therefore a 16hrs Courseware.
- The format is 60% Lab and 40% Theory.
- Max 15Nos per Class.

For details of the Course please refer to the attached Annexure.

**Eclipse Modeling Framework (EMF) – Introduction (include lab)**

Understand Eclipse Modeling Framework (EMF)  
The ecore model  
The Generator Model  
Generating EMF Model from Ecore and XSD  
Generate Model implementation code  
Generate model.edit and model.editor plug-ins

**Draw 2D and Graphical Editor Framework (GEF) API - Introduction (Include lab)**

Draw 2D introduction  
Overview of Draw 2D system  
Figures  
LightweightSystem and its components  
Major features of Draw 2D API  
Draw 2D application  
GEF Components  
MVC for GEF  
In-memory model of GEF editor  
EditorParts, Connecting Figures  
Creating a model and responding to Model Changes  
Implementing editing behaviour using EditPolicies, Request and Commands

**Domain specific modelling introduction**

Introduction to specific domain language  
Introduction to domain specific modeller  
Domain specific modeling strategies

**GMF components architecture**

Overview  
Runtime component  
GMF MVC  
Notation model  
Services model

**GMF Domains specific modeling**

Creating domain model  
Tooling definition model  
Tool definition model  
Graphical definition model  
Mapping model  
Generator model

**GMF : Definition, generation and tuning**

Example Model Domain Specification  
Tooling configuration  
Modeler generation  
Code tuning