

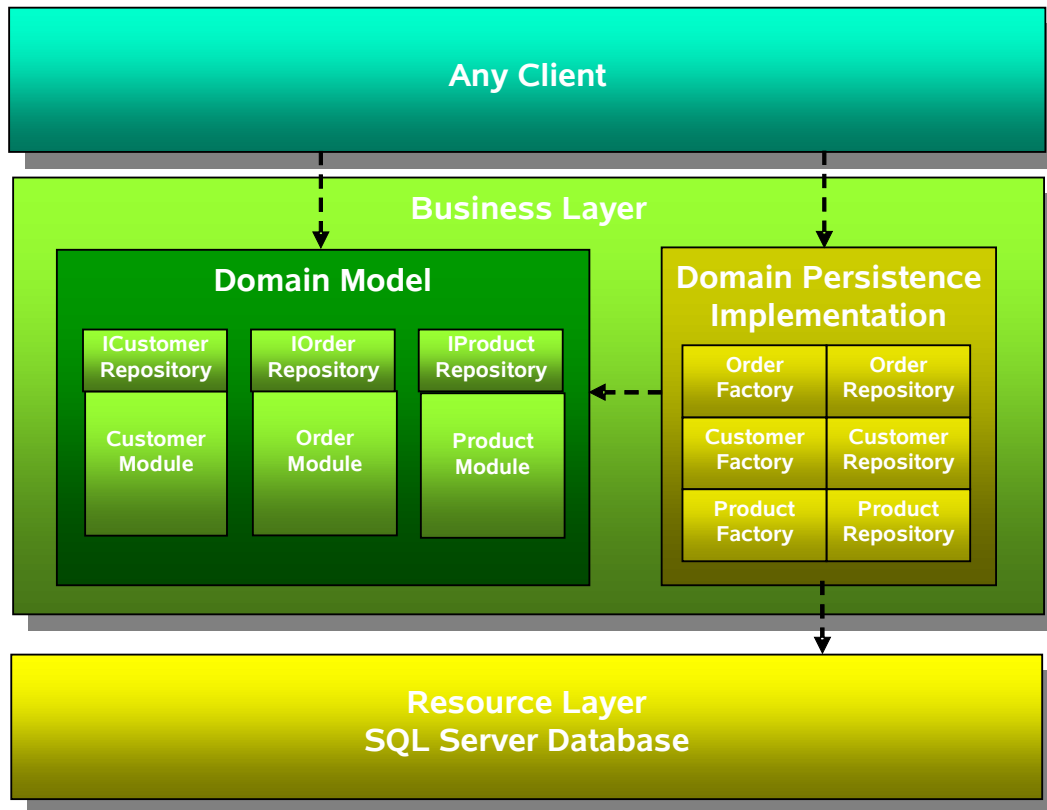
Introduction

This generator is written to generate a basic backend system according to the Domain Driven Design principles, published by Eric Evans in his book “Domain Driven Design - Tackling Complexity in the Heart of Software”.

The base model is a UML1.4 class model. A number of stereotypes, tags and assumptions are used for the generation towards C# 2.0, NHibernate v1.2 mapping files, SQL Server DDL and Visual Studio 2005 project and configuration files.

Target Architecture

The image below depicts the application architecture towards which the UML model is generated.



The sections below briefly explain the transformations from UML to the elements of the target architecture.

Domain Model

Source element	Target element
UML Model	<ul style="list-style-type: none">- Domain model package- Common repository interface (IRepository.cs)- Visual Studio 2005 project file- Visual Studio 2005 assemblyinfo file
Root package with stereotype "domainModule"	DomainModel.[DomainModuleName] namespace & package
Class with stereotype "entityObject"	<ul style="list-style-type: none">- Regular C# class- NHibernate mapping file- if tagged value "isAggregateRoot" equals true, then a repository interface for this class
Class with stereotype "valueObject"	- Regular C# class

Class with stereotype "enumeration"	- C# enum, with enumerated values equal to the UML class' attributes and initial values
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Domain Persistence Implementation

Source element	Target element
UML Model	- Domain Persistence Implementation package - Implementation of IRepository.cs - Visual Studio 2005 project file - Visual Studio 2005 assemblyinfo file
Root package with stereotype "domainModule"	DomainPersistenceImplementation .[DomainModuleName] namespace & package
Class with stereotype "entityObject"	- if tagged value "isAggregateRoot" equals true, then an implementation of the repository interface for this class - if tagged value "isAggregateRoot" equals true, then a factory for this class

Resource Layer

Source element	Target element
UML Model	- SQL Server DDL

Any Client

Source element	Target element
UML Model	- PresentationConsoleUI package - Visual Studio 2005 project file - Visual Studio 2005 assemblyinfo file - Application configuration file - NHibernate helper file - Main program file
Class with stereotype "entityObject"	- if tagged value "isAggregateRoot" equals true, then an operation with very basic console interaction to fill the individual attributes and an operation to display individual attributes

Overall

Source element	Target element
UML Model	- Visual Studio 2005 solution file