Cinema Application

Analysis and Design Document

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Revision History

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| --- | --- | --- | --- |
| **Date** | **Version** | **Description** | **Author** |
| <5/04/2017> | <1.0> |  | Deac Dan |
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# Project Specification

My project will be about a cinema application. There will be two main actors: the administrator and the regular user. The administrator will be able to make CRUD operations on movies and halls. The regular user could be any movie enthusiastic. He will be able to login with Facebook, watch trailers and make reservations.

# Elaboration – Iteration 1.1

# Domain Model

*[Define the domain model and create the conceptual class diagrams]*

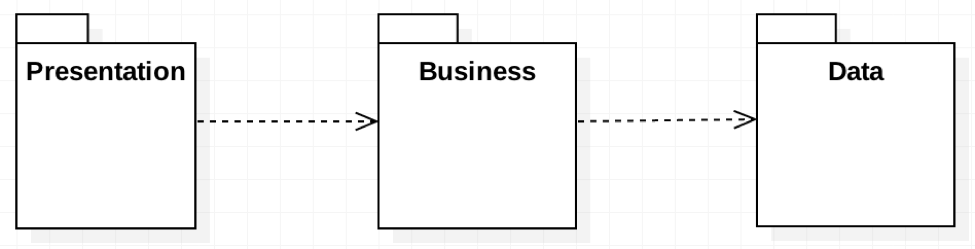
# Architectural Design

## Conceptual Architecture

The architectural design will be composed of two main patterns: Client-Server and Layered Architectural Pattern. The Layered Architectural Pattern will be divided into three layers: Presentation, Business and Data Source. The Presentation Layer will contain the GUI, the Business Layer will be the linker layer between Presentation and Data Source. Here the information will be transformed and passed forward to another layer. The Data Source Layer will be the part of the project that will be directly linked to the database and will execute queries.

## Package Design

The package diagram:

**

## Component and Deployment Diagrams

The deployment diagram:



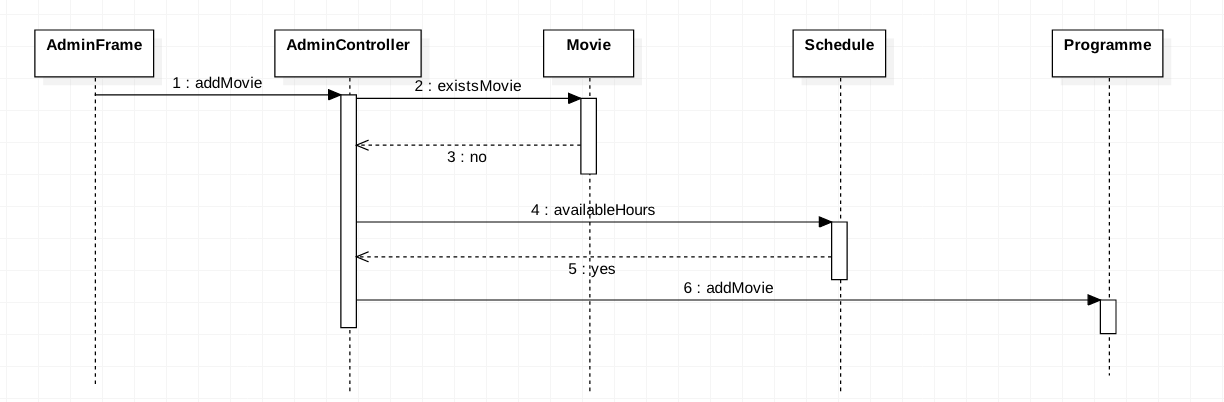
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# Elaboration – Iteration 1.2

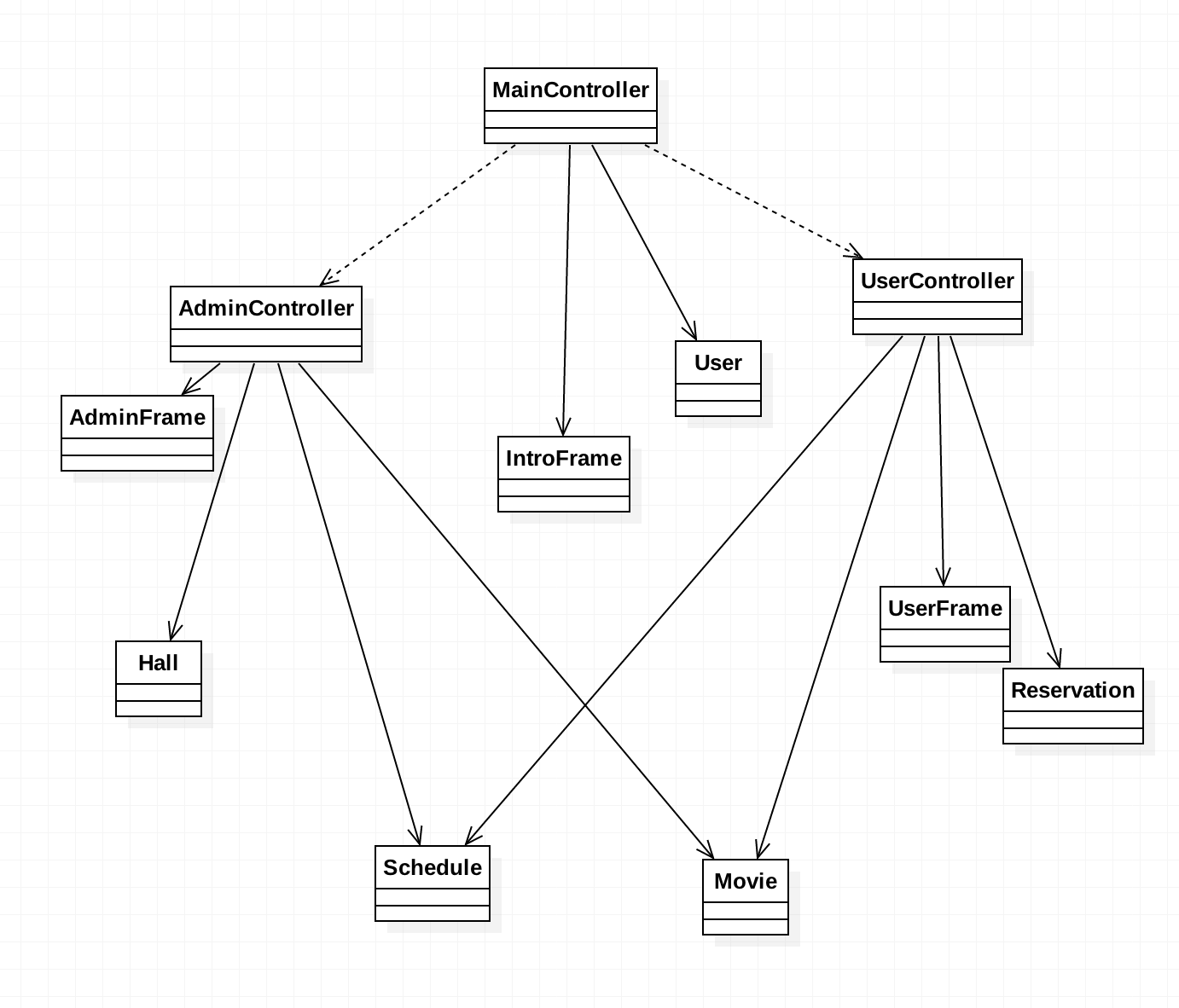
# Design Model

## Dynamic Behavior

The sequence diagram for the "add a movie" scenario is presented in the figure below:



## Class Design



# Data Model

The data model will be composed of 5 tables into the database. There will be a table for the movies that will contain information like movieID, name, director, imdb rank and a link to the trailer. The halls table will contain information like hallID and capacity. The user table will contain information like username, password and user type. The schedule table will contain information like scheduleID, movieID, hallID and hours. The reservation table will contain information like scheduleID, userID and number of places.

# Unit Testing

*[Present the used testing methods and the associated test case scenarios.]*

# Elaboration – Iteration 2

# Architectural Design Refinement

*[Refine the architectural design: conceptual architecture, package design (consider package design principles), component and deployment diagrams. Motivate the changes that have been made.]*

# Design Model Refinement

## *[Refine the UML class diagram by applying class design principles and GRASP; motivate your choices. Deliver the updated class diagrams.]*

# Construction and Transition

# System Testing

*[Describe how you applied integration testing and present the associated test case scenarios.]*

# Future improvements

*[Present future improvements for the system]*

# Bibliography