

Advanced Application Development

Agenda

Course Information

The Advanced Application Development course builds upon the concepts taught in the Composable Application Developer course. While this course is primarily a composable course, we will include some examples of implementing CSS, JavaScript, REST Services, etc. It is not necessary to be a developer to work these examples.

The course primarily focuses on more advanced process model design techniques, advanced error handling, and exception handling techniques. We will also focus on dynamic end-to-end cross-functional process model design using the AgilePoint Platform to create sophisticated process models that integrate 3rd party platforms and systems to better leverage their capabilities across the enterprise.

We will also cover advanced form design and best practices for the design adaptive Business Solutions. In addition, we will also focus on practical application design techniques and explore the 30+ adaptive process model and AI design patterns built into the AgilePoint Platform.

This course will also cover more detailed information about using AgilePoint's AI capabilities.

Finally, we will cover how the AgilePoint Platform can be extended by Professional Developers to provide a complete understanding of what is possible with the AgilePoint Platform. (See Pro Developer course for more information)

The course has designed to be modular, so the labs are designed to be either standalone or to only require minimal set up. We will build some apps from scratch and use cloned starter template apps when more complex apps are required to demonstrate the configurations. This allows us to cover many advanced concepts and accelerate the learning process.

Course Details:

- Course Prerequisites: Composable Application Development
- Course Content: Composable Application Development (some JavaScript examples)
- Course Format: Instructor-led (lectures, labs, and discussions)
- Lecture: Live-online via Zoom
- Lab Environment: AgilePoint provided Training Tenant Account
- Materials Provided: Recording of course and course notes
- Course Length: 3 Days (6 hours per day)
- **For the best Course experience** we recommend the use of 2 screens:
 - Screen 1: Watch the Lecture and Lab Demos (instructor's screen)
 - Screen 2: Follow along with the instructor step-by-step in the lab environment

Audience

- Citizen Developers
- Developers
- Professional Developers
- System Analysts
- Project Managers
- Subject Matter Experts
- Business Solutions and Systems Architects
- Support Engineers
- System Administrators

Course Objectives

The primary objective of this course is to provide AgilePoint Developers with specific training and knowledge to provide a deep understanding of the key concepts and capabilities of the AgilePoint Platform.

By the time a student finishes this course, a student will have gained extensive knowledge of how to implement advanced composable process design techniques and become aware of how the AgilePoint Platform can be extended to meet the unique requirements of each organization.

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Course Outline

Course Overview

The Advanced Application Development course expands upon the information learned in the Composable Application Development course. This course focuses primarily advanced composable process development concepts and process design patterns.

The concepts listed below are taught in the context of the applications built during the course.

Business Process Model Design and Analysis

Discussion of Business Process Modeling and Process Model Design

Training Management App

The Training Management application is used to introduce some advanced techniques for AgilePoint Process and Form design.

- Advanced Form Design - including AutoLookups and advanced triggering options
- Popup Select Control Form Example
- Automated Process Design
- Dynamic Process Adaption
- Automated Activities

Subprocess Design Patterns with Automatic and Manual Error Handling

Subprocess data model storage options

Synchronizing subprocesses called from within multi-level Loop Structures

Synchronizing process branches with Pass Milestone and Wait Milestone

- Update Custom Attributes
- Rest Service Activity Example with advanced error handling
- Loop Design Structure
- Inline functions
- User Management
- Advanced Exception and Error Handling of Automated Activities
- Datetime manipulation

Idea Management App

The Idea Management application is used to demonstrate various options for dynamically selecting participants and introduces the Advanced Task for voting and for Dynamic Process Adaption. It also introduces some advanced form design used for custom voting and signature pages.

- Participant Selection Techniques
- Advanced eForm Activity Design
 - Sequential task
 - Parallel task
 - Advanced task
 - Standard task vs. dynamic task pool
 - Anonymous tasks
 - And / OR Activities
 - Understanding Activities level settings
 - Understanding the Process Schema

Incident Management App

The Incident Management application is used to introduce complex process design techniques including coordination, synchronization, and monitoring of subprocesses nested multiple levels deep in the process model.

- Complex Process Design

- Advanced process design using parallel and sequential running subprocesses to solve complex business scenarios
- Understanding Process level settings
- Process Design Patterns
- Working with parent and subprocess data
- Looping patterns
- Wait for Milestone
- Pass Milestone
- Extender - Service Level Agreement Activity

Process Design Patterns

This module will use multiple applications to demonstrate how to implement many of the 30+ design patterns and discuss how these Process Design Patterns are useful for complex process model designs. We will also cover Process Design Patterns specific to the various aspects of AI Process Development.