

## ATG Certified Platform Developer Examination

### Introduction

This specification is intended to define the knowledge and skills that demonstrate proficiency as an application developer using ATG Relationship Management Platform tools and technologies. The ATG Platform examination verifies that candidates can apply their knowledge and skills to their job as an application developer:

- Designing solutions based on an understanding of ATG components and an assessment of the business needs of an application.
- Developing solutions built upon the Dynamo Application Framework, using ATG Scenario Personalization<sup>SM</sup>.

The examination measures a candidate's proficiency with ATG from a business and implementation perspective, and sets professional standards for ATG application development.

### Background and Experience

Developers should have a minimum of 4 months of applied experience using ATG software in an application development environment. Additionally, they should have:

- Extensive knowledge of Java, JSP, Object-Oriented application development, and systems integration
- Understanding of SQL databases, and at least some basic experience with SQL programming
- Experience in architecting/developing complex, multi-tiered Internet applications
- Fluency in ATG programming, including in depth understanding of:
  - Dynamo JSP tag libraries
  - Dynamo J2EE application structure
  - Nucleus components
  - Beans and properties
  - Configuration layers and configuration paths
  - Component scopes
  - Dynamo Servlet Beans (droplets)
  - Dynamo Services and the Dynamo Foundation Classes
  - Form Handlers
  - Dynamo Servlet Pipeline
  - Dynamo Messaging
  - ATG Scenario Personalization
- Experience in using the ATG Data Anywhere Architecture<sup>SM</sup> with content store (SQL database, HTML/XML, LDAP, etc.), including in depth understanding of:

- SQL Repositories
- Secured Repositories
- Repository Form Handlers
- Derived Properties
- Repository Cache Modes

## **I. Implementation Design - Solution Design**

The application programmer needs a fundamental understanding of the ATG Relationship Management Platform technologies in order to effectively design an application solution.

- 1.1 Given a set of application solution requirements, recognize how and when to use out-of-the-box services and droplets to meet the solution needs.
- 1.2 Given a set of application solution requirements, recognize how and when to extend standard components to meet the solution needs.
- 1.3 Given a set of application solution data store requirements, identify how to plan and apply repositories by:
  - Using data modeling and relationships
  - Designing repository items
  - Designing DB table schemas
- 1.4 Given an application design, define the parameter and method data flow between pages.
- 1.5 Given the requirements of a personalized web application, recognize how and when to extend the standard personalization features to meet application solution needs.
- 1.6 Given the requirements of a dynamic personalized web application, recognize how and when to use scenario slots over content targeting.
- 1.7 Describe the standard Scenario capabilities and how to create custom scenario events, actions, and conditions.

## **II. Implementation and Coding - Dynamo Application Framework**

The application programmer applies Dynamo Application Framework technologies in the development process.

Recognize effective and ineffective ATG JSP implementation:

- 2.1 Describe the details of the J2EE application structure.
- 2.2 Explain how to implement J2EE Web Applications.
- 2.3 Describe the purpose, features, and functions of the Core tag library.
- 2.4 Describe the purpose, features, and functions of the DSP tag library.
- 2.5 Given the function and design of a JSP, recognize how and when to use the Core and DSP tag libraries.
- 2.6 Describe the purpose, features, and functions of the standard droplets.
- 2.7 Explain how to implement a custom droplet.
- 2.8 Given an application solution, recognize how and when to use standard form handlers.

- 2.9 Given an application solution, recognize how and when to implement custom form handlers and appropriate form error handling.

Recognize the standard uses of Dynamo services.

- 2.10 Describe the details and function of Nucleus configuration layers.
- 2.11 Explain how property files combination works.
- 2.12 Explain how XML combination works.
- 2.13 Explain the uses and function of the servlet pipeline.
- 2.14 Given the requirements of an application, understand how and when to add a custom servlet to the servlet pipeline.
- 2.15 Describe how to implement custom event and data logging.
- 2.16 Explain the purpose and function of the JMS messaging services.
- 2.17 Given the requirements of an application solution, decide where and how to implement JMS messaging.
- 2.18 Describe when to use localJMS vs sqlJMS.
- 2.19 Explain the uses and function of the patch bay.
- 2.20 Explain the purpose and function of transaction services.
- 2.21 Given an application transaction requirement, describe how to correctly implement transactions services.
- 2.22 Specify the email services available to application solutions.
- 2.23 Explain the uses and functions of application modules.
- 2.24 Describe how and when to implement an application module.

Recognize appropriate strategies in implementing repositories.

- 2.25 Describe how to define repository items in XML.
- 2.26 Given an application data store design, model the data item relationships in a repository schema.
- 2.27 Describe the uses and functions of the Repository API.
- 2.28 Given a data access problem, describe how and when to use the Repository API.
- 2.29 Describe repository cascade insert, update, and delete modes.
- 2.30 Describe how and when to use RQL queries and the query builder.
- 2.31 Describe how and when to use repository caching, including:
  - Choosing a cache mode: locked, distributed, and simple caching
  - Configuring repository and item caches
  - Invalidating caches and cache entries
- 2.32 Describe how and when to use the Repository Form Handler.
- 2.33 Describe how and when to use the Search Form Handler.
- 2.34 Describe how to implement Secure Repositories.
- 2.35 Describe how Item Descriptor Inheritance works.
- 2.36 Describe how Derived Properties work.
- 2.37 Identify an implementation problem that can be resolved with the use of Derived Properties.

### **III. Implementation and Coding - Personalization and Scenarios**

The application programmer applies ATG Personalization and Scenario technologies in the development process.

Recognize how to customize out-of-the-box visitor and user management functionality.

- 3.1 Explain the design, features, and functions of the user repository.
- 3.2 Explain how to customize the user profile.

- 3.3 Given the specific requirements of an application solution, explain how to implement custom login, logout, and registration functionality using the profile form handler.
- 3.4 Explain the purpose, function, and uses of the user directory (organizations, roles, and users).
- 3.5 Explain how to implement access control (security, auto login).

Recognize appropriate and effective use of content repositories.

- 3.6 Explain how to define content.
- 3.7 Explain the difference between SQL vs. File System repositories.
- 3.8 Describe the implementation of hierarchical content repositories (folders, sub-folders, items).
- 3.9 Explain the difference between pure and hybrid repositories.

Recognize appropriate and effective use of targeters and targeting.

- 3.10 Describe the purpose, uses, and implementation of profile groups.
- 3.11 Describe the purpose, uses, and implementation of content groups.
- 3.12 Explain the implementation of targeting rules (rule sets, complex rules).
- 3.13 Given an application solution, recommend the appropriate use of targeters and targeting droplets.
- 3.14 Describe how to implement customized targeting (filtering, event firing, source map).
- 3.15 Describe the uses and function of slots.

Recognize effective customer management implementation.

- 3.16 Given a set of application requirements, recommend the appropriate use of scenarios to fulfill application objectives.
- 3.17 Describe how to implement custom actions, events, and conditions.
- 3.18 Describe how to implement a scenario-based email campaign.
- 3.19 Describe the data analysis features (data sets, recorders, charting).