

# ***Macromedia ColdFusion MX 7 Developer Certification Examination Specification***

## **Introduction**

This is an exam specification for Macromedia ColdFusion MX 7 Developer. The specification defines the content of the examination and the relevant background and experience needed to become a certified Macromedia ColdFusion MX 7 Developer.

## **Exam Purpose**

This examination is based upon the most critical job activities a Macromedia ColdFusion MX 7 Developer performs. The skills and knowledge certified by this examination represent a professional level of expertise for a certified individual. The critical job activities of a Developer are:

- Recognize effective use and reuse of code in ColdFusion MX 7 programming for application development, exception handling, troubleshooting, forms and work with complex data types.
- Recognize key concepts in database interactions, client state management, and data exchange.

## **Background and Experience**

The test specification is intended to address the knowledge and skill areas that demonstrate competency as a Macromedia ColdFusion MX 7 Developer.

The knowledge level required is defined as having experience with non-code based software that uses visual objects in development and the following general suggested prerequisites:

- Two or more years experience with one or more programming languages.
- Experienced in the applied use of an enterprise level database server
- One or more years of experience creating applications using ColdFusion.

The Macromedia instructor-led training courses that will assist in exam preparation are:

- Fast Track to ColdFusion MX 7
- Advanced ColdFusion MX 7 Development.

The skills and knowledge measured by this examination are derived from an understanding of the jobs of current Macromedia ColdFusion MX 7 Developers. A team of highly qualified Macromedia ColdFusion MX 7 developer experts defined the test content and wrote the test items.

## Exam Structure

The knowledge domains measured by this examination and the extent to which they are represented in the examination are shown in the table below.

**Note: This examination blueprint includes weighting, test objectives, and example content. Example topics and concepts are included to clarify the test objectives; they should not be construed as a comprehensive listing of the content of this examination.**

The table below lists the domains measured by this examination and the extent to which they are represented in the examination.

Domain	% of Examination
1.0 Application Development	55
2.0 Database Concepts	15
3.0 Client State Management	15
4.0 Data Exchange	15
Total	100%

## Response Limits

The examinee selects, from four (4) or more response options, the option(s) that best completes the statement or answers the question. Distracters or wrong answers are response options that examinees with incomplete knowledge or skill would likely choose, but are generally plausible responses fitting into the content area defined by the test objective.

Test item formats used in this examination are:

**Multiple-choice:** The examinee selects one option that best answers the question or completes a statement.

**Multiple-response:** The examinee selects more than one option that best answers the question or completes a statement. The question will state how many options are correct, i.e. – (Choose two).

**Sample Directions:** Read the statement or question and from the response options, select only the option(s) that represent the most correct or best answer(s) given the information provided.

# Domain 1.0 Application Development

## Content Limits

### 1.1 Identify the proper use of ColdFusion programming basics in application development.

#### Content may include the following:

- Variables and Scoping
- Looping
- CFML function
- CFML tags
- Conditional processing
- Switch/case processing
- `<cfscript>`

### 1.2 Identify and demonstrate code reuse in application development.

#### Content may include the following:

- `<cfinclude>`
- Function
  - `<cffunction>`
  - `<cfargument>` & arguments scope
  - `<cfreturn>`
- ColdFusion Components
  - THIS
  - Extends
  - Super()
  - Persistence
- User defined functions using tags
- Handling of custom tags
  - creation
  - calling
  - storing
  - `<cfimport>`
- `<cfinvoke>`
  - `<cfinvokeargument>`
- `<cfobject>` & CreateObject()

### **1.3 Recognize how to work with complex data types in application development.**

#### **Content may include the following:**

- Arrays and their usage
  - Array functions
- Structures
  - Structure functions
- Passing complex data types into custom tags
- Passing complex data into functions and CFC methods
- Combining complex data types
- Query manipulation
- <cfdump>

### **1.4 Demonstrate effective web server file management.**

#### **Content may include the following:**

- <cffile>
  - Upload files
  - Append
  - Retrieve
  - Download
  - Read and Write
- <cfdirectory>
- <cfcontent>
  - MIME types

### **1.5 Recognize and evaluate appropriate strategies for handling exceptional events.**

#### **Content may include the following:**

- Site-wide error handler
- <cferror> handling
- <cftry>/<cfcatch> methodology
- <cfthrow>

## **1.6 Recognize how to work with forms in ColdFusion.**

### **Content may include the following:**

- Forms and Form Action pages and validation
- <cfform>
  - HTML
  - XForms
    - XSL use in <cfform>
  - Flash
    - Flash form controls
- Server-side and Client-side Validation
  - forms
  - cfparam
  - isValid

## **1.7 Recognize approaches to managing the User-Experience.**

### **Content may include the following:**

- <cfflush>
- Personalization

## **1.8 Identify approaches to creating reports.**

### **Content may include the following:**

- <cfchart>/<cfchartseries>
- <cfdocument>
  - <cfdocumentitem>
  - <cfdocumentsection>
- Reporting
  - Report Writer basics
  - <cfreport>

## **1.9 Recognize and evaluate appropriate strategies to use when troubleshooting and testing an application.**

### **Content may include the following:**

- Debugging
- Debugging options: classic and dockable
  - summary or tree view
- <cftrace><cfdump><cflog>

## **Domain 2.0 Database Concepts**

### **Content Limits**

**2.1 Recognize key concepts and their use in relation to database interactions, database connections, and database manipulation tags.**

**Content may include the following:**

- Database interactions
- Invoking stored procedures
- Transaction management
- SQL queries
- Joining tables
- Grouping data output
- Handling nulls
- Calculating totals
- Database manipulation
- Insert, delete, update and select
- Caching queries
- Query of queries

## Domain 3.0 Client state management

### Content Limits:

#### 3.1 Demonstrate appropriate application of client state management.

##### Content may include the following:

- Application.cfm
  - Application events
- Application.cfm & OnRequestEnd.cfm
- Cookies
- Client variables
- Request variables
- Session variables
  - J2EE session variables
- Application variables
- Server variables
- <cflock>
- Storage locations
- <cflogin>
- <cfloginuser>
- <cfntauthenticate>

## Domain 4.0 Data Exchange

### Content Limits

#### 4.1 Identify the use of Web technology for the creation of distributed web applications.

Content may include the following:

- XML
  - Parsing
  - Manipulating
  - Validating
  - Accessing
  - Applying transformations
  - Searching
- Web Services
  - Creating web services
  - Consuming web services
- <cfftp>
- Creating agents
  - <cfhttp>
  - <cfhttpparam>
  - Post vs. get information exchange
  - HTTP header information
- Exception handling
- Event gateways