

# HCL Volt MX 9.5

## Certified Associate Developer Certification Exam Guide

HCLSoftware U

Creating a new generation of experts



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## Introduction

This certification exam is the starting point of your HCL Volt MX certification journey. This certification is to validate your knowledge of developing cross platform applications using HCL Volt MX 9.5.

The HCLSoftware Certified Volt MX 9.5 Associate Developer must demonstrate skills associated with developing applications using the Volt MX product in areas such as UI design, UX, IRIS low code capabilities, IRIS SDK, IRIS widgets and data format, IRIS coding, Foundry, Foundry SDK, Foundry custom code, Application technical requirements, IRIS extensibility, Foundry extendibility and Marketplace components.

## Requirements

There are no pre-requisites to attempt this HCLSoftware Volt MX 9.5 Associate Developer certification.

## Exam Format

- Multiple choice: Has one correct response and three incorrect responses
- Multiple choice: Has two or more correct responses out of five or more response options
- Number of questions: 42
- Total score: 63
- Passing score: 44
- Passing Percentage: 70%
- Time duration for answering the 42 questions: 60 minutes.
- Total exam time duration: 75 minutes.
- Unanswered questions are scored as incorrect; there is no penalty for guessing.

## Exam Results

The HCLSoftware Volt MX 9.5 Associate Developer (HCL-VMX-ADEV-95) certification exam is a pass or fail exam. The exam is scored against a minimum standard established by HCLSoftware subject matter experts who follow certification industry best practices and guidelines.

The exam is scored based on a Sum of Scores which is then converted into a percentage to determine pass or fail. The sum of scores is achieved by weight assigned to each individual question based on level of complexity. The minimum score required to pass the exam is 44 out of a total of 63 points, which is 70%.

## Exam Content

This exam guide includes competency areas and weightings for the exam as seen below. This exam covers content specifically for HCL Volt MX 9.5.

Competency Area	% of Examination
Iris	38%
Foundry	31%
UI/UX	15%
Application Technical Requirements	8%
Marketplace Components	8%
<b>TOTAL</b>	<b>100%</b>

### Competency Area 1: Volt MX Iris

#### 1.1 Iris Low Code Capabilities

- [Action editor](#)
- [Action editor – Network actions](#)
- [Action editor – External actions](#)
- [Data panel view](#)
- [Data panel capabilities](#)
- [Data panel – configuring dynamic UI properties](#)
- [Form](#)
- [Form template](#)
- [Iris hot reload feature](#)
- [Pass data from one form to another](#)
- [Pass custom data from one form to another](#)
- [Preview and collaborate on Iris project](#)
- [Get logged in user information using low-code capabilities in Iris](#)

#### 1.2 Iris SDK

- [Themes library](#)
- [Themes library](#)
- [Animations API](#)
- [Gestures API](#)
- [Locations API](#)
- [Segment widget APIs](#)
- [Store APIs](#)
- [Map widget APIs](#)
- [Image widget APIs](#)
- [Local Authentication APIs](#)

### 1.3 Iris Widgets & Data Format

- [Map widget and data format](#)
- [CheckboxGroup widget and data format](#)
- [RadioButtonGroup widget and data format](#)
- [Segment widget and data format](#)
- [Browser widget and data format](#)
- [Listbox widget and data format](#)
- [Segment properties](#)
- [CheckboxGroup widget properties](#)
- [Browser widget properties](#)
- [Segment widget and methods](#)

### 1.4 Iris Coding

- [Iris reference architecture dynamic module loading](#)
- [Iris JavaScript coding standards](#)
- [Iris form controller events](#)
- [Iris form controller deep dive](#)
- [RequireJS modules in Iris](#)
- [ES6 JavaScript in Iris](#)
- [iOS Native function APIs](#)
- [Android Native function APIs](#)
- [Components in Iris](#)
- [Template controller methods](#)
- [Accessing function from one form controller from another](#)

### 1.5 Iris Extensibility

- [Add custom CSS to SPA application](#)
- [Add local HTML content](#)
- [Support for Cordova application](#)
- [Cordova browser widget](#)
- [Native function APIs](#)
- [iOS Native function APIs](#)
- [Android Native function APIs](#)
- [SPA custom widget](#)
- [iOS custom widget](#)
- [Android custom widget](#)
- [Native platform widgets](#)
- [SPA custom widgets](#)
- [SPA custom widgets](#)

## Competency Area 2: Volt MX Foundry

### 2.1 Foundry

- [Foundry features](#)
- [Identity services](#)
- [Integration services](#)
- [XML integration services](#)
- [JSON integration services](#)
- [Relational Database integration services](#)
- [Orchestration services](#)
- [Workflow services](#)
- [API management](#)

### 2.2 Foundry SDK

- [Foundry SDKs](#)
- [Initializing VoltMX JS client SDK](#)
- [Object services reference APIs](#)
- [Invoke configuration services](#)
- [Invoke integration services](#)
- [Initialize Dataobject](#)
- [Support for ODATA in object services](#)

### 2.3 Foundry Custom Code

- [Java pre/post processors for integration services](#)
- [JavaScript pre/post processors for integration services](#)
- [Java pre/post processors for object services](#)
- [DataControllerRequest class](#)
- [Rules pre/post processors](#)
- [Java services](#)

### 2.4 Foundry Extendibility

- [Custom data adaptor in Foundry](#)

## Competency Area 3: UI/UX

### 3.1 UI Design

- [UI Guidelines](#)
- [Skin Forking](#)
- [Responsive Design](#)
- [Internationalization](#)
- [Using local HTML content](#)
- [Components](#)
- [Custom widget](#)
- [Custom CSS](#)

- [Application Extension](#)
- [Android manifest](#)
- [Performance and memory management](#)

### 3.2 UX

- [Application lifecycle events](#)
- [Gestures](#)
- [Form events](#)
- [Animation Actions](#)
- [Animations](#)
- [Splash screen](#)
- [Responsive grid layout](#)
- [Flex form methods](#)
- [Application library functions](#)
- [RTL support](#)
- [Interstitial Screens](#)
- [Segment widget animations](#)

### Competency Area 4: Application Technical Requirements

- [Cordova application requirements](#)
- [Iris project properties](#)
- [Invoking metrics services](#)
- [Foundry XML service configurations](#)
- [Application security – Protected mode](#)
- [Application security](#)
- [Application library APIs](#)
- [Identity service configurations](#)
- [Foundry services throttling configurations](#)
- [URL provider](#)
- [Integration service configurations](#)
- [Server events configurations](#)
- [Configuration of Foundry logger levels](#)

### Competency Area 5: Marketplace Components

- [Basics of marketplace](#)
- [Private marketplace](#)
- [Components on marketplace](#)
- [Private marketplace](#)

## Exam Preparation Resources

- It is recommended to complete the HCL Volt MX 9.5 self-paced training available on HCLSoftware U. Access the HCL Volt MX 9.5 self-paced training using the below link.  
[HCL Volt MX 9.5 self-paced training>](#)
- In addition to the HCL Volt MX 9.5 self-paced training refer to the links from the above competency areas.
- These resources and additional training are not required before taking the exam but are recommended opportunities to learn from experts and expand on your knowledge.

## Legal Statements

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