

# **Certified Associate JavaScript Programmer**

**Duration: 4 Days** 

#### **Course Outlines:**

## **Chapter 1: Classless objects**

- Create individual objects
- > Explain and use object properties
- Compare and contrast dot and bracket notations
- > Test property existence and perform property enumeration
- > Compare and contrast objects
- > Implement object copying mechanisms
- > Explain and implement methods in code
- > Explain and implement getters and setters
- Organize and configure objects and properties
- Demonstrate different ways to create classless objects
- Explain and apply the concept of prototypes

# **Chapter 2: Classes and class-based approach**

- Design classes and implement class declarations
- Create objects from classes
- > Explain and use class properties
- > Create and implement getters and setters
- > Explain and apply the concept of inheritance
- > Explain and apply static members in code
- Compare and contrast classes and constructors

### **Chapter 3: Built-in objects**

- > Explain and use the Number constructor
- > Explain and use the String constructor
- > Explain and use the Date constructor
- > Describe and implement the concept of arrays
- Explain and implement advanced array methods
- Explain, implement, and process Set data type collections
- > Explain, implement, and process Map data type collections
- > Implement objects as data structures
- > Use the JSON object to process data
- Use the Math object to perform mathematical operations
- > Explain and apply the concept of regular expressions
- Explain and implement the concept of extending built-in types

## **Chapter 4: Advanced functions**

- Organize and implement extended function parameter handling
- > Explain and use closures and IIFEs
- > Implement the mechanism for call forwarding
- > Implement the mechanism for decorating functions
- > Explain, create, and implement generators and iterators in code
- Explain, organize, and handle asynchronous events using callback functions
- > Explain and apply the concept of promises
- > Explain and apply advanced promise chaining techniques
- > Use async and await to handle promises
- Understand and implement asynchronous handling of network request