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# ArcGIS Maps SDK for JavaScript Certificate Course By The Industrial Experts

#### **Course Overview**

The ArcGIS JavaScript API is a powerful mapping and geospatial API provided by Esri, the leading provider of GIS (Geographic Information System) software and solutions. The API allows developers to build interactive web applications that incorporate mapping, spatial analysis, and visualization capabilities.

Here's an overview of the ArcGIS JavaScript API:

- Mapping Functionality: The API provides a wide range of mapping capabilities, allowing developers to display maps, add and customize layers, and work with different basemaps. It supports various map types, including 2D maps, 3D scenes, and web maps.
- Data Visualization: The API enables developers to visualize spatial data in different ways. It offers tools for symbolizing and styling features, creating thematic maps, applying heatmaps, and rendering dynamic data layers.
- Geospatial Analysis: The API includes geoprocessing and spatial analysis capabilities that allow developers to
  perform operations such as buffering, spatial querying, routing, and proximity analysis. It provides access to a
  wide range of geoprocessing tools and spatial algorithms.
- Interactive User Interface: The API offers a set of user interface components and widgets that can be easily integrated into web applications. These components allow users to interact with maps, perform queries, display pop-ups, navigate through data, and control map layers.
- Integration with ArcGIS Platform: The ArcGIS JavaScript API seamlessly integrates with the broader ArcGIS platform, which includes various server-side components and services. Developers can leverage services such as ArcGIS Online, ArcGIS Server, ArcGIS Enterprise, and ArcGIS GeoEvent Server to access and manage geospatial data.
- Developer Tools and Resources: Esri provides extensive documentation, samples, and resources to help developers get started with the ArcGIS JavaScript API. It offers a rich set of libraries, SDKs, and developer tools, including a powerful API reference, code samples, and a developer community for support.
- Cross-Platform Compatibility: The API supports cross-platform development, allowing developers to create mapping applications that work across different devices and browsers. It is compatible with modern web technologies such as HTML5, CSS, and JavaScript.

Overall, the ArcGIS JavaScript API provides a comprehensive set of tools and functionality for building web-based mapping applications with advanced GIS capabilities. It empowers developers to create interactive and visually compelling applications that leverage spatial data and analysis.

## **Pre-Requisites**

- HTML/CSS: Basic knowledge of HTML (Hypertext Markup Language) and CSS (Cascading Style Sheets) is necessary for building web applications.
- JavaScript: Understanding JavaScript is essential as the ArcGIS JavaScript API is based on this programming language. Familiarize yourself with JavaScript concepts, syntax, variables, functions, loops, and object-oriented programming.
- Web Development: Having a solid understanding of web development concepts and technologies is beneficial.
- GIS Fundamentals: While not mandatory, having a basic understanding of GIS principles and spatial data concepts will help you grasp the geospatial aspects of the ArcGIS JavaScript API. Familiarize yourself with terms like maps, layers, features, coordinate systems, and geographic data formats.

well these prerequisites are beneficial, they are not mandatory. You can start learning ArcGis Javascript API and acquire the necessary skills and knowledge along the way.

## **Benefits of Learning ArcGIS JavaScript API**

ArcGIS JavaScript API offers several benefits, particularly for those interested in geospatial data and web mapping. Here are some key advantages of learning the ArcGIS JavaScript API:

- Powerful Mapping Capabilities: The ArcGIS JavaScript API allows you to create interactive and visually appealing maps, incorporating a wide range of features and layers. You can customize the appearance, symbology, and labeling of map elements to effectively communicate spatial information.
- Web-Based Applications: With the ArcGIS JavaScript API, you can develop web-based applications that are accessible across different devices and platforms. This enables users to access and interact with your maps and spatial data through a web browser, without the need for specialized software installations.
- Spatial Analysis and Geoprocessing: The API provides extensive tools and functions for spatial analysis and geoprocessing. You can perform operations such as buffering, querying, routing, proximity analysis, and more, enabling you to gain insights and make informed decisions based on your geospatial data.
- Data Visualization and Exploration: The API offers a wide range of options for data visualization, allowing you to effectively represent and explore spatial data. You can create thematic maps, apply heatmaps, display time-based data, and visualize data using charts and graphs.
- Extensibility and Customization: The ArcGIS JavaScript API is highly extensible, allowing you to enhance its capabilities and customize the functionality to suit your specific requirements. You can create custom widgets, add-ons, and extensions to extend the API's functionality and tailor it to your application's needs.
- Career Opportunities: Proficiency in the ArcGIS JavaScript API opens up various career opportunities in the geospatial industry. Many organizations, including government agencies, environmental organizations, urban planning departments, and private companies, rely on GIS and web mapping solutions. Having expertise in the ArcGIS JavaScript API can be valuable for roles such as GIS developer, web GIS specialist, spatial analyst, and geospatial consultant.

Overall, learning the ArcGIS JavaScript API equips you with the skills and knowledge to build interactive web mapping applications, perform spatial analysis, and effectively communicate geospatial information. It empowers you to leverage the power of GIS and spatial data in various domains and opens up exciting career opportunities in the geospatial field.

#### **Related Job Roles**

- GIS Developer
- Web GIS Specialist
- GIS Project Manager
- Geospatial Software Engineer
- Geospatial Consultant

These are just a few examples of job roles where knowledge and experience with the **ArcGIS JavaScript API** are valuable. The geospatial industry offers diverse opportunities, and proficiency in web mapping and GIS development can open doors to exciting careers in fields such as government, environmental management, urban planning, transportation, natural resources, and more.

#### **Available Training Options**

- Online/Offline
- Weekdays Batches
- Weekend Batches
- Course Duration: 60 Days
- Mode of Training Online Live Online Classes
- Daily 1Hr (Need to have a laptop or Computer with Good Internet)

Dedicated Trainer, Practical sessions. One-on-One Live Training Session with Hands-on Practical Training. For fees details and discounts whatsapp on Phno: +91 8050123030

## ArcGIS Maps SDK for JavaScript Training Syllabus

#### Topics we cover:

- 1. HTML 5
- 2. CSS
- 3. JavaScript
- 4. ArcGIS JavaScriptAPI
- 5. Arcgis Online
- 6. Geoserver

#### Introduction to HTML

HTML is the standard mark-up language for Web pages, which helps you to create your own website.

- Understanding about Browser
- Domain
- Host
- HTML Structure

#### TAG'S in HTML

- heading
- font
- formatting
- paragraph

#### List in HTML

- ol and it's type
- ul and it's type

#### Table and it's properties

- table
- tr
- th
- td

#### **Input Elements**

- checkbox
- color
- date
- email
- file
- hidden
- image
- month
- number
- password
- radio
- reset
- search
- submit
- text

#### **CSS** - Introduction

- CSS Syntax
- CSS Colors
- CSS Backgrounds
- CSS Fonts
- CSS Text
- CSS Images
- CSS Links
- CSS Tables
- CSS Borders
- CSS Margins
- CSS Lists
- CSS Padding
- CSS Positioning
- CSS Layers
- CSS Pseudo Classes
- CSS Pseudo Elements
- CSS Text Effects
- CSS Rounded Corner
- CSS Border Images
- CSS Multi Background
- CSS Color
- CSS Gradients
- CSS Shadow
- CSS Text
- CSS Box Sizing

#### Introduction to JavaScript

- What is Javascript
- JavaScript history
- Relation between JavaScript and ECMAScript
- Versions of JavaScript

#### JavaScript Core

- Syntax, Variables, Values, Data Types
- Syntax review
- Keywords
- Variable declaration
- Variable scope
- Block scope.
- Data Types
- Primitive values
- Reference values
- Expressions and Operators
- Expressions (arithmetic, relational, logical, assignment and others),

#### Control structures

- Flow control and conditionals
- Loops and iteration

#### **Functions**

- Defining functions
- Calling functions
- Functions as values
- Arguments and parameters
- Function scope
- Closures
- Arrow functions

#### Arrays

- Creating and populating Arrays
- Array methods
- Working with Arrays

#### JavaScript BOM

- Window Object
- History Object
- Navigator Object
- Screen Object

#### JavaScript DOM

- getElementById
- getElementsByClassName
- getElementsByName
- getElementsByTagName
- innerHTML property
- innerText property

#### JavaScript OOPs

- JS Class
- JS Object
- JS Prototype
- JS constructor Method
- JS static Method
- JS Encapsulation
- JS Inheritance
- JS Polymorphism
- JS Abstraction

#### **ArcGIS Online**

- Introducing Web GIS
- Mapping and Visualization
- Web Map
- Components of Web Map
- Feature Layers
- Web map uses
- Base map layers and operations layers
- Web AppBuilder for ArcGIS
- Configurable Web App Examples
- Creating Your First Application with WebApp Builder
- Designing Your Application with Themes.
- Adding Widgets Defining Attributes.
- Previewing Applications
- Creating and Using Templates
- Sharing your Content

## Introduction to ArcGIS JavaScriptAPI esri Map Modules

- Map
- MapView
- SceneView

#### esri Layer Modules

- FeatureLayer
- WebMap
- SceneMap
- MapImageLayer
- WFSLayer,
- WMSLayer
- WMTSLayer
- WCSLayer

#### esri Widgets Modules

- BasemapGallery
- BasemapLayerList
- BasemapToggle
- Legend
- Search
- ScaleBar
- Sketch
- FeatureTable
- LayerList
- Home
- Locate
- Measurement
- ScaleBar
- Bookmarks
- Expand
- Fullscreen

#### esri/symbols

- SimpleFillSymbol
- SimpleLineSymbol
- SimpleMarkerSymbol
- Symbol

#### esri/Geometries and esri/Graph Modules

- Spatial Reference
- Extent
- Point
- Polygon
- Polyline
- Areas and Length
- Buffer
- Distance
- Intersect
- Union
- Label Points

#### esri Other popular Moduels

- request
- Popup
- Popup Template
- Query
- Clustering
- Render

#### Introduction to GeoServer

- Setting up GeoServer on Windows Environment
- Working with Vector Spatial Data
- About Workspaces
- Create Workspace
- About Stores
- Import Vector Data to Store
- Publish Vector Data to GeoServer
- Web Map Service (WMS)
- Serving Cascading WMS
- Web Feature Service (WFS)
- Differences WMS and WFS
- Layer Preview in GeoServer
- Connect and Work with QGIS

#### Layer Styling

- Styling Point Features
- Styling Line Features
- Styling Polygon Features
- GeoServer Basic Vector Styling
- Exporting SLD from QGIS

## For Registration/ Customization of Course / Course Fees

Call / What's app on: +91 8050123030

Duration: 60 Days

Mode of Training: Online

Weekdays: Monday-Friday

Weekends: Saturday and Sunday

## **Student Review**

## Arvind Raju From : Oman

I've taken up the Advance Python & Arcpy classes from this institute with trainer Mrs.Roselynn very knowledgeable teaches and the course topics with great detail. Everything was easy to understand and I was always helped with doubts until it was completely rectified. I would definitely recommend this Institute to anyone wanting to learn Python or any of the other courses they offer.

#### Ullash Ghosh From : Kolkatta

Excellent teaching of Advance Python programming by experienced trainer. Flexible timings. It was an awesome experience.

## Jahir Hussain From : Qatar

Its Helped me to identify clear,be able next steps towards resolving my own workplace conflict and issues.

## Ayeesha H From :Bangalore

Great knowledge given by the mentor, Best training institution. Mam has explained all the topics very clearly.

## **Student Review**

## Vishnu vg From Kerala

My trainer, has a very good command over all the topics. She has explained each topic very clearly. We got a good understanding of all the concepts as she used to write programs daily for the real time scenarios. She make us practice during the classes. Overall I could say, you will be gaining good hands-on and understanding by end of the course.

## Eshawar Rao From Hubli Dharwad

Excellent Faculty, Excellent Knowledge about subject, madam gives Attention towards every individual student, Madam is having enough Patience in clearing all individual doubts, Overal Excellent training centre to learn and to grow.

## Siddhi Kanekar From Pune

Best training institution. Mam has explained all the topics very clearly.

Thank you so much mam for being part of your institution.

## Aghil Dev From Orisa

I happy to be a student of rose mam, as she was always present to help. My classes were good and helped me in understanding the concept. Thanks rose mam

## From Ezeal Tech Placement Cell

#### **Gaurav Chauhan**

Position: GIS Analyst

Company:

Carifer Technologies Private Limited

Chennai

Salary: 13 LPA

#### Harisha

Position: GIS Analyst

Company:

GVS Technosoft Pvt. Ltd

Salary: 10 LPA

#### **Ankit Hemnani**

Position: Software Engineer .Net

Company:

Celtic System Pvt.Ltd

Salary: 7.5 LPA

## Harish Vijayakumar

Position: Project-Assosiate

Company:

Cognizant Technology Solutions India

Private Limited Salary: 12 LPA

## Ezeal Tech Team

#### KIRAN B

Qualification: MBA Position: Business Head Experience: 18 Years

His extensive experience in Operations Management, Client Acquisition, HR & Recruitment, and working with startups, he has demonstrated a track record of success across multiple industries and geographies. Starting from an executive level, he progressed to management positions, where he implemented process improvements to enhance efficien y, increase revenue, and drive growth. His vast network of colleges and training centers has significantly contributed to the development of robust recruitment and training pipelines. Moreover, he has successfully engaged with diverse clients.

#### NIKHIL S D

**Oualification: BE Civil** 

Position: CAD Trainer (Civil)

Experience: 10 Years

**Programing Skills:** C.C++

2D And 3D Skills: AutoCad, 3D Max, Staad pro, Solid Works, Revit, Google Sketchup and

ArcGIS CityEngine

Highly experienced CAD Civil Trainer with demonstrated track record of success in delivering comprehensive training instruction, specifically tailored for civil engineering applications. Committed to empowering learners with the necessary skills and knowledge to excel in their civil design and drafting projects.

#### RAMESH J

**Qualification: BE Mech** 

Position: CAD CAM Trainer (Mech)

Experience: 6 Years

**Programing Skills:** C,C++,Python 2D And 3D Skills: AutoCad, Catia, Pro-e, Solid Edge, MatLab, Ansys, Solid Works,

Results-oriented CAD Mech Trainer with a decade of experience delivering exceptional training and instruction in 2D and modeling software for mechanical engineering applications. Committed to equipping learners with the skills and knowledge needed to excel in mechanical design, simulation, manufacturing.

#### ROSELEN S B

**Oualification: MCA** 

Position: Programmer And Corporate

Trainer

Experience: 12 Years

**Programing Skills:** Java, Python, AI, Machine Learning, Php, SQL, Full Stack GIS Skill: Arcpy, ArcGIS JS API, ArcGIS Python API, PostGIS, Web AppBuilder,

WebGIS

Highly experienced programming mentor with a strong background in various programming languages With over 12 years of training experience, has successfully mentored more than 3000 students, dedicated to helping aspiring programmers and professionals acquire the necessary skills and knowledge to

#### **KAVITA H**

**Qualification:** MSc.IT

Position: Programing Trainer

Experience: 10 Years

<u>Programing Skills:</u> C, C++, Java, MSSQL, MYSQL Server, C# and good knowledge in Servlets, JSP, EJB Worked on J2EE 1.4

**Application Server** 

Kavita is a seasoned programming mentor and trainer with a decade of experience specializing in Java Servlets and MySQL. She has a strong passion for teaching and guiding individuals in mastering these technologies, kavita's in depth knowledge and practical experience in Java Servlets and MySQL make her an ideal mentor for aspiring programmers looking to excel in web development

#### ANKIT H

Qualification: MSc.Geoinformatics

Position: GIS Trainer Experience: 6 Years

GIS Skills: Arc GIS, Arc GIS Pro, QGIS, IGIS, Fusion X, Auto CAD, MS Office, Google Earth, Bhuvan Portal, Geo-Server, Arcgis online, Microstation

Programing Skills: HTML, CSS, Java script ArcGIS API for Java script, .Net, Python Ankit is a highly skilled GIS trainer has experience in ArcGIS, QGIS, PostGIS, remote sensing, and network analysis. His expertise lies in the field of spatial data analysis and geospatial technologies. He is passionate about sharing his knowledge, and helping individuals develop proficiency in GIS applications for various industries.

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