Working with JSON

Lesson 03

Lesson Objectives

- **JSON Introduction**

- **JSON Types**

- **JSON vs. XML**

- **Working with JSON Object**

- **Using JSON in jQuery**

JSON Introduction

- **Java Script Object Notation**

- **JSON is a lightweight format for exchanging data between the client and server.**

- **JSON is a syntax for passing around objects that contain name/value pairs, arrays and other objects.**

- **It is often used in AJAX applications because of its simplicity and because its format is based on JavaScript object literals.**

- **JSON is language independent and text based. It is easy to parse and generate.**

- **Supported by most of the languages.**

JSON Types

- **Number : integer, real or floating point**

- **String : double-quoted Unicode with backslashes**

- **Boolean : true and false**

- **Array : ordered sequence of comma-separated values enclosed in square brackets**

- **Object : collection of comma-separated "key":value pairs enclosed in curly braces**

- **null**

JSON vs. XML

- **Lighter and faster than XML as on-the-wire data format**

- **JSON objects are typed while XML data is typeless**

  - **JSON types: string, number, array, boolean**

  - **XML data are all string**

- **Native data form for JavaScript code**

  - **Data is readily accessible as JSON objects in your JavaScript code vs. XML data needed to be parsed and assigned to variables through tedious DOM APIs**

  - **Retrieving values is as easy as reading from an object property in your JavaScript code**

JSON Object Notation

- **A JSON object is an unordered set of name/value pairs**

    - **A JSON object begins with { (left brace) and ends with } (right brace)**

    - **Each name is followed by : (colon) and the name/value pairs are separated by , (comma) and enclosed with in quotes.**

- **var jsonObject = {"Name":"Karthik", "Company":"iGATE Patni"}**

- **It is very easy to parse JSON. In JavaScript, the parsing process is immediate: All we have to do is pass the JSON string to the JavaScript eval() function**

    - **var parsedJson = eval(jsonObject);**

Demo

- **JSON-Intro.html**
- **JSON-Array-Object.html**

Using JSON in jQuery

- A JSON object can be passed as input into jQuery Methods, so that we can avoid method chaining.

- We can parse a JSON string in jQuery using the following syntax

  var obj = jQuery.parseJSON(jsonString);

Demo

- **JSON-jQuery.html**

Summary

- **JSON is a lightweight format for exchanging data between the client and server.**

- **JSON objects are typed**

- **JSON is language independent and text based. It is easy to parse and generate**

- **It is often used in AJAX applications because of its simplicity**

Lab

- **3.1.Working with JSON Object**
- **3.2.Working with JSON Object and Array**
- **3.3.Using JSON object in jQuery**

Review Question

- **JSON is language dependent?**
    - **True / False**

- **_____ is not a valid JSON type**

    A. **Boolean**
    B. **String**
    C. **Date**
    D. **Array**