JSON Parsing in PHP

- Introduction to JSON
- JSON Parsing methods in PHP
- PROGRAMS on Methods

What is JSON??

- JSON – JAVASCRIPT OBJECT NOTATION
- It is a format which transfers data from client to server & from server to client.
- Mostly used in Android,webtechnologies,RestAPI.

Why JSON ??

- In server side programming data can be exchanged and stored in several formats including JSON,XML,CSV,YAML.
- Among them JSON is most popular and light weight data interchange format.
- Before JSON,XML is used but it is not fully supported by AJAXTOOLKIT and also retrieving value is difficult.
- In JSON transferring data is faster when compared with XML.
- JSON has minimal syntax.

JSON Parsing Methods in PHP

- PHP has built-in functions to handle JSON
  1. json_encode( )
  2. json_decode( )
  3. json_last_error_msg( )

json_encode( ) :

- json_encode( ) is used to encode a value to JSON Format.
- The value being encoded can be any PHP datatype.
- Converting PHP object into JSON format is done using json_encode( ) in PHP.
- PHP OBJECT--->>JSON FORMAT

SYNTAX OF json_encode( )

- SYNTAX:

  ```
  json_encode(value,options,depth)
  ```

  >> value : specifies the value to be encoded.

- Ex: (in php)

  ```
  $cars=array(“x”,”y”,”z”);
  echo json_encode($cars);
              >>output :: [“x”,”y”,”z”]
  ```

json_decode( ):

- json_decode( ) is used to convert JSON encodded string into appropriate PHP datatype.
- Converts JSON object into PHP object.
- JSON OBJ---->>PHP OBJ

SYNTAX of json_decode( )

- Syntax:

  json_decode(String,assoc,depth,options)

- json_decode( ) accepts 4 parameters but we will only need the first 2 in most situations.

  1) String – specifies the string we want to decode

  2)assoc – determines how the decoded data is returned

  --it takes boolean value (true and false)

  TRUE- returns an associative array

  FALSE – returns an object (by default)

Example:

```
<?php
    $data='{"x":2,"y":4}';
    print_r(json_decode($data));
 ?>
```

- Output:

```
stdClass Object ( [x] => 2 [y] => 4 )
```

json.parse( ):

- We know that receiving the data from the server will be generally in “STRING” format but as it is not suitable for the retrieval of complex data we use this “json.parse( )”.
- This method is used to convert the string format into javascript object.
- This method is not used to convert into php object.

Syntax & Example:

Syntax:

json.parse( )

- Ex:

=>json format:

const obj = JSON.parse('{"name":"John", "age":30, "city":"New York"}');

=>inc in html:

```
<p id="demo"></p>
<script>
document.getElementById("demo").innerHTML = obj.name;
</script>
```

Dealing with ERRORS during ENCODING & DECODING

- json_last_error_msg( ) helps in finding what kind of error you are getting so that you can take appropriate steps.
- ERRORS like: missing parenthesis,quotes,excess comma.

SYNTAX & EXAMPLE

- Syntax:

```
json_last_error_msg( )
```

```
<?php
   $data='{"name":2,}';
   var_dump(json_decode($data));
   echo json_last_error_msg();
?>
```

- Output: NULL Syntax error

THANK YOU