**DBMS Lab**

**Assignment No. 14(JSON Objects)**

**Aim:** To encode and decode JSON objects using PHP/JAVA.

**Title:** Study and demonstrate the use of encoding and decoding JSON objects using PHP/JAVA.

**Theory:**

**JSON (Java Script Object Notation)**

JSON extension is bundled with PHP by default from version 5.2.0 so there is no need of any special environment.

**JSON Functions:**

1. json\_encode: It returns the JSON representation of a value.

2. json\_decode: It decodes a JSON string.

3. json\_last\_error: It returns the last error occurred.

**Encoding:**

json\_encode () function is used for encoding which returns JSON representation of a value.

**Syntax:**

string json\_encode ( $value [, $options = 0 ] )

The value parameter specifies value being specified. It works only with UTF-8 encoded data. The options parameter specifies the a bitmask consisting of JSON\_HEX\_QUOT,JSON\_HEX\_TAG,JSON\_HEX\_AMP,JSON\_HEX\_APOS,JSON\_NUMERIC\_CHECK,JSON\_PRETTY\_PRINT,JSON\_UNESCAPED\_SLASHES, JSON\_FORCE\_OBJECT.

**Example:**

**The following PHP code**

<?php

class Emp {

public $name = "";

public $hobbies = "";

public $birthdate = "";

}

$e = new Emp();

$e->name = "sachin";

$e->hobbies = "sports";

$e->birthdate = date('m/d/Y h:i:s a', strtotime("8/5/1974 11:20:03"));

echo json\_encode($e);?>

can be encoded to JSON object

{"name":"sachin","hobbies":"sports","birthdate":"08/05/1974 11:20:03 pm"}

**Decoding:**

json\_decode () function is used for decoding JSON object in to PHP.

**Syntax:**

json\_decode ($json [,$assoc = false [, $depth = 511 [, $options = 0 ]]])

**Parameters:**

* json\_string : It is encoded string which must be UTF-8 encoded data.
* assoc : It is a boolean type parameter, when set to TRUE, returned objects will be converted into associative arrays.
* depth: It is an integer type parameter which specifies recursion depth
* options: It is an integer type bitmask of JSON decode. It supports JSON\_BIGINT\_AS\_STRING

**Example:**

**The following JSON object**

<?php

$json = '{"a":1,"b":2,"c":3,"d":4,"e":5}';

var\_dump(json\_decode($json));

var\_dump(json\_decode($json, true));

?>

can be decoded into

object(stdClass)#1 (5) {

["a"] => int(1)

["b"] => int(2)

["c"] => int(3)

["d"] => int(4)

["e"] => int(5)

}

array(5) {

["a"] => int(1)

["b"] => int(2)

["c"] => int(3)

["d"] => int(4)

["e"] => int(5)

}

**Conclusion:**

Write your analysis (whatever you have learned) for this assignment as concluding points.

**Viva Questions:**

1. Define encoding and decoding of objects in general.
2. Whether encoding/decoding supports simple JSON objects or JSON Array objects or both. Explain with suitable example.