

Praktikum 2: JSON Encode & Decode MySQL to JSON – JSON to PHP Array/Object

A. JSON Encode & Decode

PHP json_encode() Function

The json_encode() digunakan untuk menyandikan nilai ke format JSON.

Contoh json Object:

```
<?php
$age = array("Peter"=>35, "Ben"=>37, "Joe"=>43);

echo json_encode($age);
?>
```

Output:

```
{"Peter":35,"Ben":37,"Joe":43}
```

Contoh json Array:

```
<?php
$cars = array("Volvo", "BMW", "Toyota");

echo json_encode($cars);
?>
```

Output:

```
["Volvo","BMW","Toyota"]
```

PHP json_decode() Function

The json_decode() digunakan untuk mendekode atau mengubah objek JSON menjadi objek PHP.

Contoh json Object:

```
<?php
$jsonobj = '{"Peter":35,"Ben":37,"Joe":43}';

$obj = json_decode($jsonobj);
```

```
// mengakses nilai object
echo $obj->Peter;
echo $obj->Ben;
echo $obj->Joe;
?>
```

Output:

353743

Contoh json Array:

```
<?php
```

```
$jsonobj = '{"Peter":35,"Ben":37,"Joe":43}';
```

```
$arr = json_decode($jsonobj, true);
```

```
// mengakses nilai array
```

```
echo $arr["Peter"];
```

```
echo $arr["Ben"];
```

```
echo $arr["Joe"];
```

```
?>
```

Output:

353743

Latihan (2.A.1):

1. Buat sebuah variabel array, lalu encode ke format JSON.
2. Buat sebuah variabel yang berisi json, lalu decode variabel tersebut ke dalam bentuk PHP Object dan PHP Array, kemudian akses nilai pada variabel hasil decode tersebut masing-masing.

B. MySQL to JSON – JSON to PHP Array/Object

Database: json

Struktur tabel "wisata"

Nama	Jenis	Panjang/Nilai
id_wisata	INT	2
kota	VARCHAR	10
landmark	VARCHAR	100
tarif	VARCHAR	10

id_wisata = primary_key

isi tabel:

KOTA	LANDMARK	TARIF
SEMARANG	LAWANG SEWU	20000
YOGYAKARTA	PRAMBANAN	35000
MAGELANG	BOROBUDUR	45000
SURAKARTA	PGS	GRATIS

Skrip dibawah ini berfungsi untuk mengambil data dari MySQL tabel lalu di encode ke format JSON.

Skrip getWisata.php:

```
<?php
$connect = mysqli_connect("localhost", "root", "root", "json");
$sql = "SELECT * FROM wisata";
$result = mysqli_query($connect, $sql);
$json_array = array();
while($row = mysqli_fetch_assoc($result))
{
    $json_array[] = $row;
}
echo json_encode($json_array);
?>
```

Output:

```
[{"id_wisata": "1", "kota": "SEMARANG", "landmark": "LAWANG SEWU", "tarif": "20000"},
{"id_wisata": "2", "kota": "YOGYAKARTA", "landmark": "PRAMBANAN", "tarif": "35000"},
{"id_wisata": "3", "kota": "MAGELANG", "landmark": "BOROBUDUR", "tarif": "45000"},
{"id_wisata": "4", "kota": "SURAKARTA", "landmark": "PGS", "tarif": "GRATIS"}]
```

Skrip dibawah ini berfungsi untuk mengambil data JSON lalu di decode ke format PHP Object/Array menggunakan fungsi curl.

Skrip tampilWisata.php:

```
<?php
function curl($url){
    $ch = curl_init();
    curl_setopt($ch, CURLOPT_URL, $url);
    curl_setopt($ch, CURLOPT_RETURNTRANSFER, 1);
    $output = curl_exec($ch);
    curl_close($ch);
    return $output;
}

$send = curl("http://localhost/json/getWisata.php");

// mengubah JSON menjadi array
$data = json_decode($send, TRUE);

foreach($data as $row){
    echo $row["id_wisata"]."<br/>";
    echo $row["kota"]."<br/>";
    echo $row["landmark"]."<br/>";
    echo $row["tarif"]."<br/><hr/>";
}
?>
```

Output:

1 SEMARANG LAWANG SEWU 20000
2 YOGYAKARTA PRAMBANAN 35000
3 MAGELANG BOROBUDUR 45000
4 SURAKARTA PGS GRATIS

Latihan (2.A.2):

Hasil decode data JSON diatas tampilkan ke dalam bentuk HTML Tabel seperti berikut:

KOTA	LANDMARK	TARIF
SEMARANG	LAWANG SEWU	20000
YOGYAKARTA	PRAMBANAN	35000
MAGELANG	BOROBUDUR	45000
SURAKARTA	PGS	GRATIS