**What is JSON?**

**JSON (JavaScript Object Notation)** is a lightweight data-interchange format that is easy for humans to read and write, and easy for machines to parse and generate. It is commonly used for transmitting data in web applications.

**Advantages of JSON:**

1. **Lightweight Format**: JSON has a compact structure, making it easy to transmit data over a network.
2. **Human Readable**: JSON is easy to read and understand, making debugging and manual editing more straightforward.
3. **Language Independent**: JSON is supported by almost all programming languages, making it versatile for data exchange.
4. **Easy to Parse**: JSON can be easily parsed by JavaScript, making it ideal for web-based applications.
5. **Wide Usage in APIs**: JSON is the preferred format for most APIs, which helps in seamless data exchange between different systems.

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**JSON Encode**

```php
header('Content-Type: application/json');

$AsocArray=[ "name"=>"Jhon", "age"=>30];
$JSON=json_encode($AsocArray);
echo $JSON;

$AsocArray=[
    [ "name"=>"Jhon", "age"=>30],
    [ "name"=>"Mark", "age"=>33]
];
$JSON=json_encode($AsocArray);
echo $JSON;
```

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**JSON Decode**

```php
header('Content-Type: text/plain');

$JSON = '{"name": "Jhon", "age": 30}';
$AsocArray = json_decode($JSON, true);
print_r($AsocArray);

$JSON = '[{"name": "Jhon", "age": 30}, {"name": "Mark", "age": 33}]';
$AsocArray = json_decode($JSON, true);
print_r($AsocArray);
```

#php