

Lecture 9 Notes

JSON, PHP Session, Cookies, PHP Include,

Model View Control Architecture

JSON:

- XML format er data read korbo PHP use kore. Means, PHP use kore XML data ke parse kore data read korbo.
- \$xml hocche actually object.
- simplexml_load_string() -> this is a PHP built in function jar kaj hocche apni jokhon parameter e xml data diben, tokhon xml data ke PHP object e convert kore nibe. Ei function er return e object dey. So that's why we can say that \$xml is an object.
- So, \$xml er property ache to, from, heading, body. Ei self descriptive tag gulo hocche ei object er ek ekta property.

```
<?php
$xmlData =
"<?xml version = '1.0'?>
<note>
<to>Tove</to>
<from>Jani</from>
<heading>Remainder</heading>
<body>Don't forget me this weekend!</body>
</note>";

$xml = simplexml_load_string($xmlData) or die ("FUCKKKKKKKKKKK Error: Can not
create object");
// $xml hocche actually object.
/* simplexml_load_string() -> this is a PHP built in function jar kaj hocche apni
jokhon
parameter e xml data diben, tokhon xml data ke PHP object e convert kore nibe.
Ei function er return e object dey. So that's why we can say that $xml is an
object.
So, $xml er property ache to, from, heading, body. Ei self descriptive tag gulo
hocche
ei object er ek ekta property.*/
print_r($xml);
echo "<br>".$xml->to;
```

?>

SimpleXMLElement Object ([to] => Tove [from] => Jani [heading] => Remainder [body] => Don't forget me this weekend!)
Tove

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Read data from JSON file

JSON is an open standard file format and data interchange format that uses human-readable text to store and transmit data objects consisting of attribute-value pairs and arrays.

JSON

- > JavaScript Object Notation

-> Used to store data

-> It is a text (string: string ("name":"Harry")/ string: value ("year":2000)) base format

Advantages of JSON

- Lightweight and easy method for storing data.
- Human-readable.
- Easy to convert JSON data to JavaScript objects.

When we need to store data for multiple things such as books, cars, students, etc., at that time we use an array of JSON data.

books.json file

```
{
  "books":[
    {
      "name":"Harry Potter",
      "author":"J.K. Rowling",
      "year":2000
    },
    {
      "name":"C Programming",
      "author":"Harchildth",
      "year":2000
    },
    {
      "name":"Murakami",
      "author":"ABC",
      "year":2000
    }
  ]
}
```

```
}  
]  
}
```

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Store user input in JSON file & when data needed, read data from JSON file:

Data writing in JSON file:

To write data in JSON format, we need a PHP built-in function “json_encode()”. Ei function e jokhon ekta object pathabo, function ta object ke JSON e convert kore dibe

This function is used to encode data or objects in JSON format

```
<?php  
class Student  
{  
    public $name;  
    public $id;  
    public $city;  
}  
$obj = new Student();  
$obj -> name = "Shayoni";  
$obj -> age = 20;  
$obj -> city = "Dhaka";  
  
$jsondata = json_encode($obj);  
echo $jsondata;  
  
?>
```

{"name":"Shayoni","id":null,"city":"Dhaka","age":20}

JSON format I printed

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```
<?php  
class Student  
{  
    public $name;  
    public $id;
```

```

public $city;

function assign($name, $id, $city)
{
    $this->name = $name;
    $this->id = $id;
    $this->city = $city;
}
}
$obj = new Student();
$obj -> assign("Asif", 21, "Barishal");

$jsondata = json_encode($obj);
echo $jsondata;

?>

```

{"name":"Asif","id":21,"city":"Barishal"}

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Read data from JSON file:

- File_get_contents("filename.json"); -> This function will take JSON data into a variable
- Decode korar por 2 way te data pete pari : 1. Associative Array 2. Object
- Json_decode(variable, true/false) -> Ei function ta JSON data decode korbe to read. Ei function er first parameter hocche amra je variable er moddhe JSON data ta in koralam file_get_contents() function er maddhome ota, and second parameter hocche true or false.
- TRUE dile associative array te convert hobe, FALSE dile object e converts hobe.

```

• //JSON file
• {
•   "books":[
•     {
•       "name":"Harry Potter",
•       "author":"J.K. Rowling",
•       "year":2000
•     },
•     {
•       "name":"C Programming",
•       "author":"Harchildth",
•       "year":2000
•     },
•     {
•       "name":"Murakami",

```

```

•     "author": "ABC",
•     "year": 2000
•     }
•   ]
• }

```

```

//Code in different file to read JSON data
<?php
$jsondata = file_get_contents("books.json");
//This function will take the JSON data to the variable jsondata we declared.

$json = json_decode($jsondata,true);
echo $json ['books'][0]['author'];
?>

```

J.K. Rowling

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```

<?php
$jsondata = file_get_contents("books.json");
//This function will take the JSON data to the variable jsondata we declared.

$json = json_decode($jsondata,true);

foreach ($json['books'] as $b)
{
    echo "Book name is: ".$b['name']."<br>";
    echo "Books author is: ".$b['author']."<br>";
    echo "Books publishing year is: ".$b['year']."<br>";
}
?>

```

Book name is: Harry Potter
Books author is: J.K. Rowling
Books publishing year is: 2000
Book name is: C Programming
Books author is: Harchildth
Books publishing year is: 2000
Book name is: Murakami
Books author is: ABC
Books publishing year is: 2000

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PHP Session, Cookies:

Follow W3School https://www.w3schools.com/php/php_cookies.asp

Cookie holo kono information browser ba local drive e store kori and browser jokhon request korbe, oi stored value ta retrieve kore dite pari. Jemon portal ba onno website e id and pass remember me te diye rakhi, tahole next time jokhon login korte jabo, tokhon ar abar amr input dea lagbena, data ta saved thakbe. Mulo to eta identification er jonno use hoy.

- A cookie is often used to identify a user. A cookie is a small file that the server embeds on the user's computer. Each time the same computer requests a page with a browser, it will send the cookie too.
- With PHP, you can both create and retrieve cookie values.
- A cookie is created with the `setcookie()` function.
- `isset()` function is used to check whether any cookie exists or not
- If you want to update, you need to use `setcookie()` again

```
<?php
setcookie("username","asif01", time()+60*60*24*7*2);
//cookie set for 60 sec* 60 min * 24 hours* 7 day
if(isset($_COOKIE["username"])) //checking username name kono cookie set
kora ache kina. Jodi set kora thake tahole cookie er value ta print hobe
{
    echo $_COOKIE["username"];
}
```

• ?>

asif01

- Cookie delete korte chaile setcookie() function e time er moddhe negative 3600 (-3600) diye dibo which means I want to delete the cookie.

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Session

Session hocche emon ekta concept jetar maddhome ekta date ke multiple page e use korte paren.

W3School https://www.w3schools.com/php/php_sessions.asp

What is a PHP Session?

When you work with an application, you open it, do some changes, and then you close it. This is much like a Session. The computer knows who you are. It knows when you start the application and when you end. But on the internet there is one problem: the web server does not know who you are or what you do, because the HTTP address doesn't maintain state.

Session variables solve this problem by storing user information to be used across multiple pages (e.g. username, favorite color, etc). By default, session variables last until the user closes the browser.

So; Session variables hold information about one single user, and are available to all pages in one application.

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PHP Include

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Model View Controller / Layered Architecture

1. Model -> Database connection/ Database related files
2. View -> Design files
3. Controller -> Server request handler, controls both model and view