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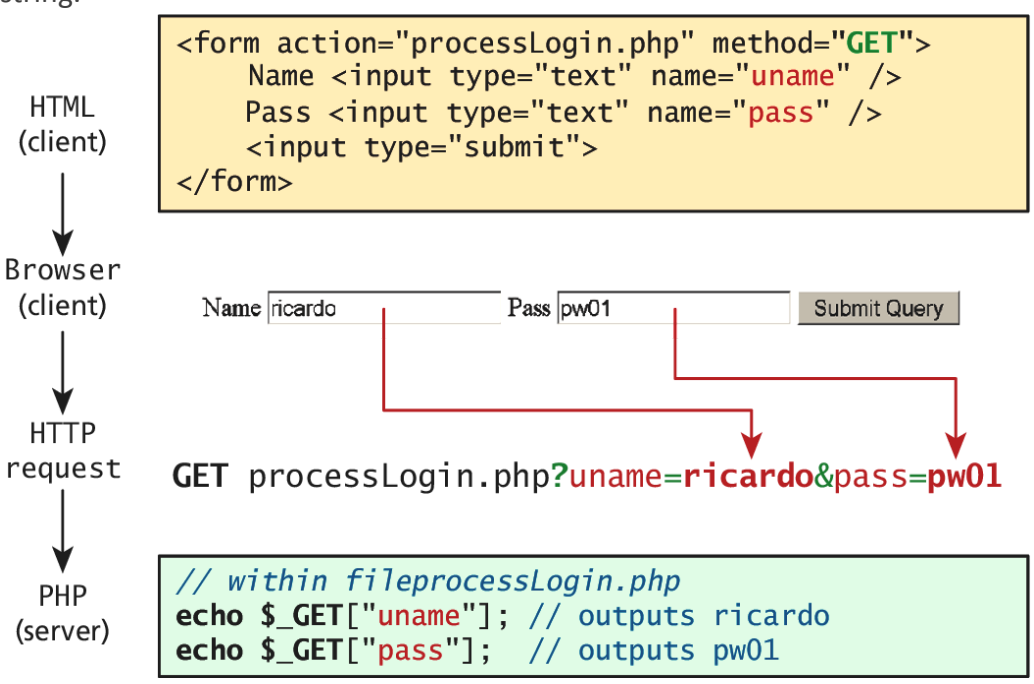
Internal Assessment Test 3-Scheme & Solution -July 2023

Sub:	WEB TECHNOLOGY AND ITS APPLICATIONS					Sub Code:	18CS63	Branch:	ISE
Date:	5/07/2023	Duration:	90 min's	Max Marks:	50	Sem/Sec:	VI A, B & C		OBE

	Answer any FIVE FULL Questions	MARKS	CO	RBT
1	Describe the functionalities and differences between the $_GET and $_POST super global arrays. The $_GET and $_POST arrays are the most important superglobal variables in PHP since they allow the programmer to access data sent by the client in a query string.  • Get requests parse query strings into the $_GET array • Post requests are parsed into the $_POST array This mechanism greatly simplifies accessing the data posted by the user, since you need not parse the query string or the POST request headers!	10	CO4	L2
2	Explain the concepts of data encapsulation, inheritance, and polymorphism in the context of PHP with example. Perhaps the most important advantage to object-oriented design is the possibility of **encapsulation**, which generally refers to restricting access to an object's	10	CO4	L3

internal components.

Another way of understanding encapsulation is: it is the hiding of an object's implementation details

A properly encapsulated class will define an **interface** to the world in the form of its public methods, and leave its data, that is, its properties, hidden (that is, private).
If a properly encapsulated class makes its properties private, then how do you access them?

- **getters**
- **setters**

A getter to return a variable's value is often very straightforward and should not modify the property.

```
public function getFirstName() {

        return $this->firstName;

}
```

etter methods modify properties, and allow extra logic to be added to prevent properties from being set to strange values.

```
public function setBirthDate($birthdate){
        // set variable only if passed a valid date string
        $date = date_create($birthdate);
        if ( ! $date ) {
                $this->birthDate = $this->getEarliestAllowedDate();
        }
        else {
        // if very early date then change it to
        // the earliest allowed date
                if ( $date < $this->getEarliestAllowedDate() ) {
                   $date = $this->getEarliestAllowedDate();
                }
                $this->birthDate = $date;
        }

}
```

3 (a)	Write a PHP program to display a digital clock which displays the current time of the server <!DOCTYPE HTML>	5	CO4	L2

	<html>
	<head>
	<meta http-equiv="refresh" content="1"/>
	<style>
	p {
	color:white;
	font-size:90px;
	position: absolute;
	top: 50%;
	left: 50%;
	transform: translate(-50%, -50%);
	}
	body{background-color:black;}
	</style>
	 <?php echo date(" h: i : s A");?>
	</head>			

3 (b)	What is session? Explain How to set the session state. All modern web development environments provide some type of session state mechanism. **Session state** is a server-based state mechanism that lets web applications store and retrieve objects of any type for each unique user session. Session state is ideal for storing more complex objects or data structures that are associated with a user session. • In PHP, session state is available to the via the $_SESSION variable • Must use session_start() to enable sessions.	5	CO4	L2

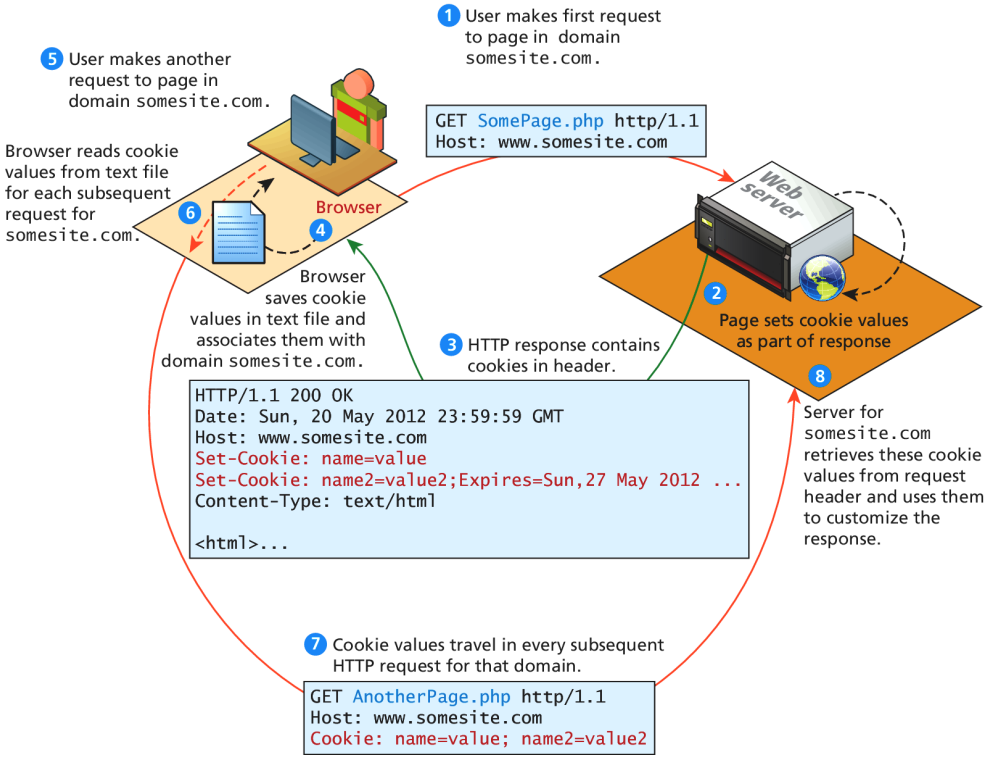
```php
<?php

session_start();

if ( isset($_SESSION['user']) ) {
   // User is logged in
}
else {
   // No one is logged in (guest)
}
?>
```

LISTING 13.5 Accessing session state

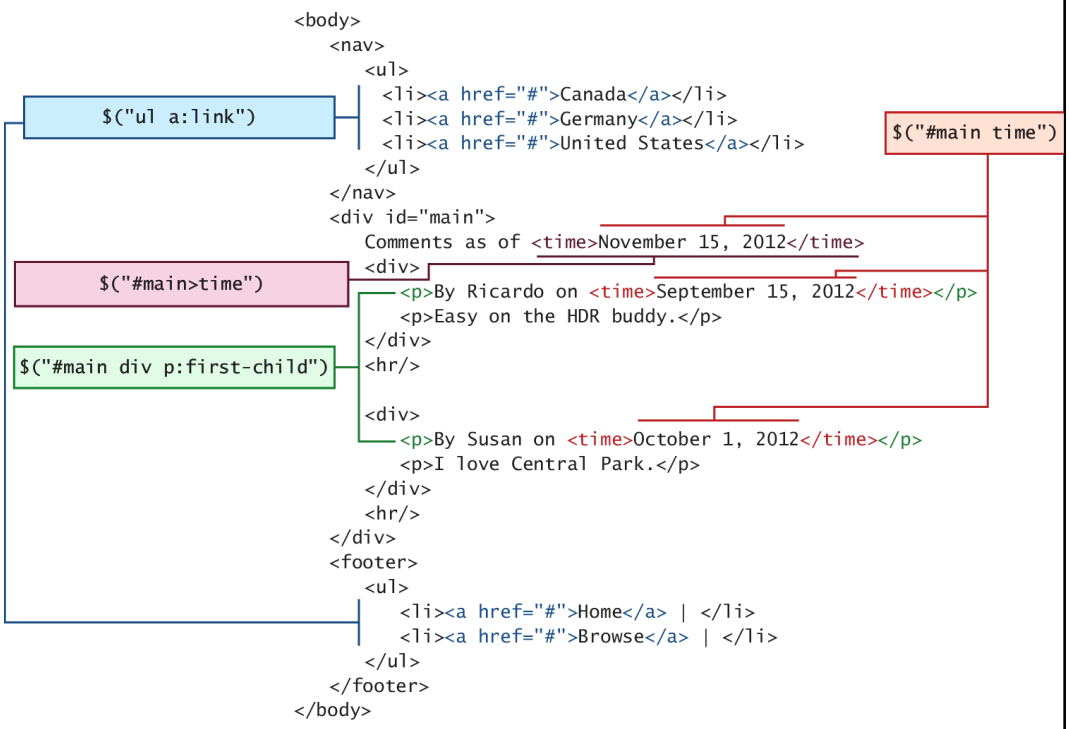
```php
<?php
include_once("ShoppingCart.class.php");

session_start();

// always check for existence of session object before accessing it
if ( !isset($_SESSION["Cart"]) ) {
   //session variables can be strings, arrays, or objects, but
   // smaller is better
   $_SESSION["Cart"] = new ShoppingCart();
}
$cart = $_SESSION["Cart"];
?>
```

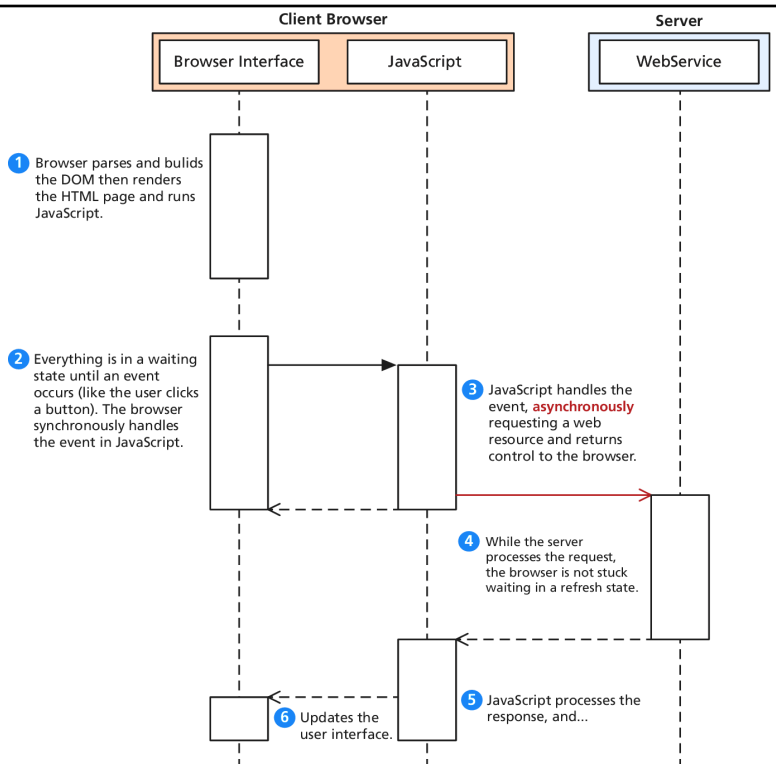
LISTING 13.6 Checking session existence

4	What are HTTP cookies? What is their purpose? Describe exactly how cookies work. **cookies** are a client-side approach for persisting state information. They are name=value pairs that are saved within one or more text files that are managed by the browser. While cookie information is stored and retrieved by the browser, the information in a cookie travels within the HTTP header. • Sites that use cookies should not depend on their availability for critical features • The user can delete cookies or tamper with them	10	CO4	L3



5	What does $() short stand for in jQuery? Explain any 3 jQuery form selectors. **Query()** Is reserved for selecting elements from the DOM. Because it is used so frequently, it has a shortcut notation and can be written as **$()** • $("*") **Universal selector** matches all elements (and is slow). • $("tag") **Element selector** matches all elements with the given element name. • $(".class") **Class selector** matches all elements with the given CSS class. • $("#id") **Id selector** matches all elements with a given HTML id attribute. For example, to select the single element with id="grab" you would write: **var singleElement = $("#grab");** To get a set of all the <a> elements the selector would be: **var allAs = $("a");**	10	CO5	L3

	These selectors replace the use of getElementById() entirely.  			
6	What is AJAX? Explain AJAX request by writing UML diagram Asynchronous JavaScript with XML (AJAX) is a term used to describe a paradigm that allows a web browser to send messages back to the server without interrupting the flow of what's being shown in the browser.	10	CO5	L2


Client Browser
Server
Browser Interface
JavaScript
WebService
1 Browser parses and bulids the DOM then renders the HTML page and runs JavaScript.
2 Everything is in a waiting state until an event occurs (like the user clicks a button). The browser synchronously handles the event in JavaScript.
3 JavaScript handles the event, asynchronously requesting a web resource and returns control to the browser.
4 While the server processes the request, the browser is not stuck waiting in a refresh state.
5 JavaScript processes the response, and...
6 Updates the user interface.