Final Question Solution

Summer 2018

1.a)

```php
<?php require 'connection.php'; ?>
<?php
//for update
if (isset($_POST['update'])) {


    $first_name = $_POST['first_name'];

    $age = $_POST['age'];

    $address = $_POST['address'];

    $stmt = $con->query("update registration set
first_name='$first_name',age='$age',address='$address' where id=1") or die
mysqli_error($con)."at line number ".__LINE__;

    if ($stmt) {

        echo "Data Updated"

    }

}
$stmt = $con->query('select * from users where id=1') or die
(mysqli_error($con))."at line number ".__LINE__;

$data = array();

if ($stmt) {

    $data = $stmt->fetch_assoc();

}


 ?>
<!DOCTYPE html>
<html lang="en">
<head>

    <meta charset="UTF-8">
```

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```html
        <title>Registration Form</title>

        <style>

                .wrapper{

                        width: 80%;

                        margin: 0 auto;}

        </style>

</head>

<body>

        <div class="wrapper">

                <h1>Registration Form</h1>

                <form action="" method="post">

                        <label for="">First Name</label><br>

                        <input type="text" name="first_name" value="<?php
$data['0']['first_name']; ?>"><br>

                        <label for="">Last Name</label><br>

                        <input type="text" name="last_name"  value="<?php
$data['0']['last_name']; ?>"><br>

                        <label for="">Age</label><br>

                        <input type="number" name="age"  value="<?php
$data['0']['age']; ?>"><br>

                        <label for="">Phone</label><br>

                        <input type="text" name="phone"  value="<?php
$data['0']['phone']; ?>"><br>

                        <button type="submit">Save</button>

                </form>

        </div>

</body>

</html>
```

1.b)

Resource: A resource is a special variable, holding a reference to an external resource. Resources are created and used by special functions.

Object: Objects. An Object is an individual instance of the data structure defined by a class.

*Static***:** There may be times when a static variable is needed in a PHP function; static variables maintain their value between function calls and are tidier than using a global variable because they cannot be modified outside of the function

*Global***:** Global scope refers to any variable that is defined outside of any function. PHP also stores all global variables in an array called $GLOBALS[index]. Its index is the name of the variable. This array is also accessible from within functions and can be used to update global variables directly.

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2a). In real world when we work a computer it knows our identity and information. But when we browse data from a server by using browser or another client then server doesn't know our identity and even it can hide. During browsing, a temporary session id is saved in browser and after closing site, the session id is deleted. But we can resolve it by saving cookie data in client browser for a certain period. And again, check the client during his next visit to that website. We can also use browser ip-address for knowing client's location and information to resolve this problem.

2.b)

PHP Session

Sessions are a simple way to store data for individual users against a unique session ID. This can be used to persist state information between page requests. Session IDs are normally sent to the browser via session

PHP COOKIE

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, we can both create and retrieve cookie values.

Difference Between Session and Cookie

SL	Session	Cookie
1	Session data is stored on the server	Cookies store data in the visitor's browser.
2	Sessions are more secure than cookies as it is stored in server	Cookie can be turned off from browser
3	The data in the session is lost when the web browser is closed.	But data stored in cookie can be stored for months or years, depending on the life span of the cookie

2.c)

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3.a) JavaScript and Java are not same at all. JavaScript is a client-side language and runs in browser easily without any kind of extra compiler or interpreter. Whereas Java is a high-level programming language that is not light weight like JavaScript. Java needs extra compiler to turn it into machine readable code. Java is an OOP programming language while JavaScript is an OOP scripting language. Java creates applications that run in a virtual machine or browser while JavaScript code is run on a browser only. Java code needs to be compiled while JavaScript code are all in text. Both They require different plug-ins.

JavaScript is different from PHP. JavaScript is a client-side language whereas PHP is a server-side language. To run JavaScript no need to have another compiler or interpreter but PHP requires it. Php is a server or backend logic. Php basically handles requests and sends back HTML+CSS+ js pages or acts like a restful service.

3.b)

```
var r = Number(prompt("Enter radius"));
var h = Number(prompt("Enter height"));
var pi = 3.14159;
var v = (pi * (r*r)) * h;
alert("Volume is "+v);
```

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3.c)

JavaScript can change different elements in entire html code. It can be changed during page load, after page load or event according to any kind of events (click, mouseover, mouse out etc.). Below is an example.........

```
<!DOCTYPE html>
<html lang="en">
<head>
     <meta charset="UTF-8">
     <title>Document</title>
</head>
<body>
<span id="show">Old Phrase</span>
<button type="button" onclick="changeText()">Click here</button>
     <script>
          function changeText(){
               document.getElementById("show").innerHTML = 'World';
          }


     </script>
</body>
</html>
```

4.a) Object oriented programming main deals with object and class. In class there are several access modifiers such as public, private and protected. Methods and variables of a class are mainly known as property of a class. Different access modifiers are *public, private, protected.*

private: private method or variable can only be accessed inside of a class.

Private access modifier is mainly used for keeping data private from other class inside a project. For making a variable/method private it is needed to add private keyword before. It any class tries to access data from private property then programs will generate an error. The best way of accessing private data is to take of public method.

```php
<?php
class Shows
    {
        public $name;
        private $number;


        public function __construct($name,$number)
        {
            $this->name   = $name;
            $this->number = $number;
        }


        public function setNumber($number)
        {
          $this->number = $number;
        }


        public function getNumber()
        {
          return $this->number;
        }
}
```

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```php
        $sh = new Shows("Jhon","017XXXXXX");

        $sh->number; //generate error

        $sh->setNumber("015XXXXXX");

        $sh->getNumber();

        $sh->Air(); //no error

?>
```

4b). An abstract class is a class that contains at least one abstract method, which is a method without any actual code in it, just the name and the parameters, and that has been marked as "abstract".

Difference between abstract class interface.

Interface	Abstract class
Interface support multiple inheritance	Abstract class does not support multiple inheritance
Interface does'n Contains Data Member	Abstract class contains Data Member
Interface does'n contains Cunstructors	Abstract class contains Cunstructors
An interface Contains only incomplete member (signature of member)	An abstract class Contains both incomplete (abstract) and complete member
An interface cannot have access modifiers by default everything is assumed as public	An abstract class can contain access modifiers for the subs, functions, properties
Member of interface can not be Static	Only Complete Member of abstract class can be Static

4c).

Well, there are two types of Polymorphism as stated below:

- Static Polymorphism (Early binding)
- Dynamic Polymorphism (Late binding)

Static Polymorphism (Early Binding):

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Static Polymorphism is also known as Early Binding and Compile time Polymorphism. Method Overloading and Operator Overloading are examples of the same.

It is known as Compiler Time Polymorphism because the compiler is aware of the functions with same name and also which overloaded function is to be called is known at compile time.

5.a) MVC stands for Model–view–controller. It is a software architectural pattern for implementing user interfaces on computers. It divides a given software application into three interconnected parts, so as to separate internal representations of information from the ways that information is presented to or accepted from the user. In MVC pattern when a client requests a server it transfers request to the controller. After that controllers take decision which file will be served for that request. If any database request or query is needed then controller handles it and finally after generating result it shows in browser in html format.

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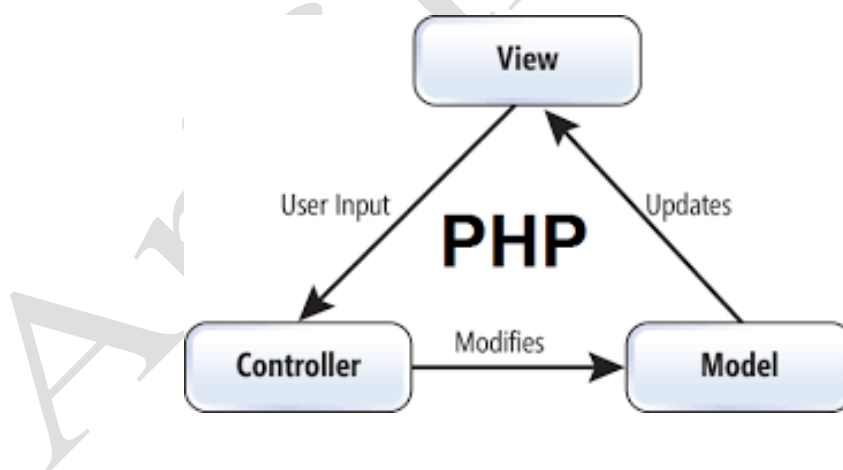
Drawbacks of MVC

1) Increased complexity

2) Inefficiency of data access in view

3) Difficulty of using MVC with modern user interface

4) Need multiple programmers

5) Knowledge on multiple technologies is required

6) Developer should have knowledge of both client-side code and html code

5b)

```html
<!DOCTYPE html>

<html lang="en">

<head>

      <meta charset="UTF-8">

      <title>HTML Design</title>

      <style>

          *{margin: 0; padding: 0}

          .wrapper{

                width: 960px;

                margin: 50px auto;

                border: 1px solid #000;

          }

          header{

                min-height: 50px;

                border-bottom: 1px solid #000;

          }
```

```css
.logo{

    width: 40%;

    float: left;

    padding: 10px;

}

.search{

    width: 56%;

    float: right;

    margin-top: 20px;

}

.content{

    min-height: 302px;

    border-bottom: 1px solid #000;

}

.left{

    width: 20%;

    float: left;

    border-right: 1px solid #000;

    min-height: 302px;

}

.left ul.menu{

    list-style: none;

    min-height: 100px;

    padding: 10px;

}

.left ul li{
```

```css
        border: 1px solid #000;

        padding: 4px;

}

.left ul li a{

        text-decoration: none;

        padding: 0px 10px;

        color: #000;

}

.middle{

        width: 50%;

        float: left;

        padding: 3px;

        border-right: 1px solid #000;

        min-height: 302px;

}

form{

        width: 90%;

        margin: 0px auto;

}

input[type=text] {

        width: 200px;

}

input[type=password]{

        margin-top: 2px;

        width: 200px;

}
```

```css
button{

        margin-left: 400px;

}

.right{

        width: 25%;

        float: right;

}

.right-menu{

        list-style: none;

        padding: 5px;

        width: 98px;

}

.right-menu li{

        border: 1px solid #000;

        padding: 5px;

}

.right-menu li a{

        text-decoration: none;

        color: #000;

}

.center{

        text-align: center;

}

footer{

        text-align: center;

        min-height: 50px;
```

```
                    font-size: 20px;}


        </style>

</head>

<body>

    <div class="wrapper">

        <header>

            <div class="logo">

                <h4>Logo Here</h4>

            </div>

            <div class="search">

                <input type="text" placeholder="Search Here">

            </div>

        </header>

        <div class="content">

            <div class="left">

                <h3>Left Block</h3>

                <p class="center">Menu</p>

                <ul class="menu">

                    <li><a href="#">Home</a></li>

                    <li><a href="#">Registration</a></li>

                    <li><a href="#">About Us</a></li>

                </ul>

            </div>

            <div class="middle">

                <h1 class="center">Main Content</h1>
```

```html
                  </div>

                  <div class="right">

                        <img src="something.jpg" alt="">

                        <h3 class="center">Links</h3>

                        <ul class="right-menu">

                              <li><a
href="https://facebook.com">Banner</a></li>

                              <li><a
href="https://twitter.com">Advertising</a></li>

                              <li><a
href="https://instagram.com">Instagram</a></li>

                              <li><a
href="https://linkedin.com">Linkedin</a></li>

                        </ul>

                  </div>

            </div>

            <footer class="">

                  <h3>Copyright &copy; Ariful Islam</h3>

                  <p class="center">Lorem ipsum dolor sit amet,
consectetur adipisicing elit. Veniam, reprehenderit!</p>

            </footer>

      </div>


</body>

</html>
```