# ISIT307 - Web Server Programming

# Assignment -1

# Tutorial-03 ( FT )

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**Aims**

In this assignment, you will need to develop a dynamic web site "**Bike Passion**". In the website, a potential seller can enter information about the **bike** that she/he is selling including personal contact information.

The buyer can list basic information about all announced bikes. Also, the buyer should have the opportunity for obtaining more information (like year of manufacture, characteristics, condition) about the bike of interest by entering the serial number of the bike and receiving details. Additional information about how many people have expressed their interest for the given bike, should be displayed as well.

After looking at the details of a bike, the potential buyer should be able to express interest. To express the interest the buyer should enter the serial number, the price he/she is proposing, name, contact telephone number and e-mail.

Entered information: telephone, e-mail and bike serial number need to be validated in the PHP script.

The information that potential sellers provide should be saved in a text file called "BikesforSale.txt".

The information for expression of interest should be saved in a file called "ExpInterest.txt".

**Home.php**
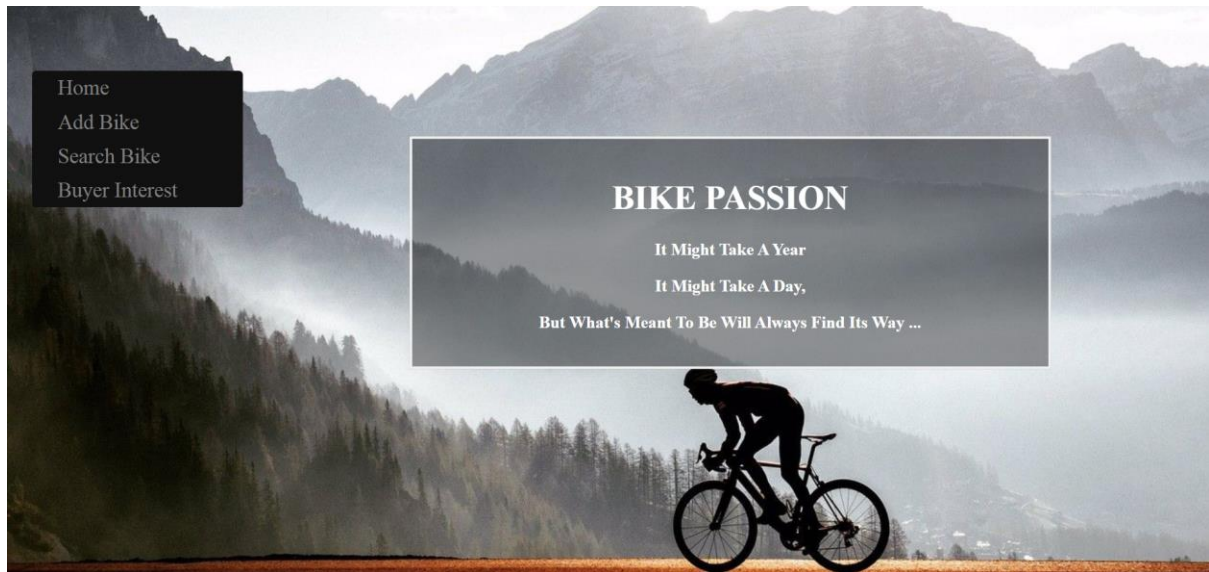


- Include Side Navigation Bar to access the functionalities → "Add Bikes", "Search Bike"and "Buyer Interest"on the website

**AddBike.php**



- Ask user to fill in every field before they submit

(i)   Check User Enter *the format of the serial number is 'yy-nnn-ccc', where 'yy' are last two digit of the year of manufacture (e.g. for 2017 it would be '17'), 'n' is any digit 0-9, and 'c' is any letter a-z;*

**Add Bike**

**Bike Serial No:**
16-999-bbb

**Bike Type:**
Others

**Year of Manufature:**
2013

**Characteristics:**
NA

**Condition:**
NA

**Seller Name:**
Ting Ting

**Phone No:**
92448716

**Email:**
wutingying.wty@gmail

**Submit**

**(After Submit the form)**

**Add Bike**

**Please enter the First 2 Serial No digits (yy-nnnn-cc with yy being the last 2 digits of manufacturing year)!**

**Bike Serial No:**
yy-nnn-ccc

Figure-1

Display the Error message as the above Figure 1 when user enter the First 2 digits of Serial No is different with the Last 2 digits of Manufacturing year.

(ii)     Check User Enter the Duplicated Serial No



**Add Bike**

**Serial Number Already Exists! Please Enter again!**

**Bike Serial No:**

yy-nnn-ccc

Figure-2

Display Error message as the above figure-2 when user enter Duplicate Serial No.

(iii)     Submit the form, if all the data are in correct format

## Add Bike

**Bike Serial No:**
17-888-hhh

**Bike Type:**
Others

**Year of Manufature:**
2017

**Characteristics:**
Nice

**Condition:**
Good

**Seller Name:**
Rose

**Phone No:**
92448716

**Email:**
rose@gmail.com

Submit

## Add Bike

**Successfully Submitted!**

**Bike Serial No:**
yy-nnn-ccc

Figure-3

"Add Bike" Form will be successfully submitted and save the data in "BikesforSale.txt" file when all the data were entered correctly as the above Figure-3.

## Code Explanation

```php
<div class="AddBike">
    <h1><b>Add Bike</b></h1>
    <?php
      if (isset($_POST['Submit']))
        {
            //Variable to store the data entered by the user
            $serialNo = $_POST['serialNo'];
            $type = $_POST['type'];
            $year = $_POST['year'];
            $chara = $_POST['chara'];
            $condition = $_POST['condition'];
            $name = $_POST['name'];
            $phone = $_POST['phone'];
            $email = $_POST['email'];

            $checkYear  =  substr($year, -2);      //Get the Last 2 Digits only
            //echo $checkYear;
            $checkSerialNo = substr($serialNo,0,2);  //Get the first 2 Digits only
            //echo $checkSerialNo;

             //Parse from user input
             $dataInput = isset($_POST['serialNo'])? $_POST['serialNo']:'';

            //Read the data from "BikesforSale.txt" file
            $data = file('BikesforSale.txt');
            $accessData = array();
            foreach($data as $line){
                list($id,$type) = explode(',', $line);
                $accessData[trim($id)] = trim($type);
                    //echo $id. "<br>";
            }
        }
```

```php
//Validate the Serial No format
if(!preg_match("/^[0-9]{2}-[0-9]{3}-[a-z]{3}$/", $serialNo)){
    $serialNoError = "Invalid Serial No Format! Please Enter again!";
}
elseif($checkYear != $checkSerialNo)        //Check the ID & Year
{
    $serialNoError2 = "Please enter the First 2 Serial No digits (yy-nnnn-cc with yy being the last 2 digits of manufacturing year)!";
}
//Validate the Phone No format
elseif(!preg_match("/^[6|9|8][0-9]{7}$/",$phone)){
    $PhoneError = "Invalid Contact No Format!Please Enter again!";
}
//Validate year
elseif(!preg_match("/^[1|2|][0-9]{3}$/",$year)){
    $YearError = "Invalid year!Please Enter again!";
}
//Validate Email address
elseif (!filter_var($email, FILTER_VALIDATE_EMAIL))
{
    $emailErr = "Invalid Email format! Please Enter again!";
}
//Check Duplicate serialNo
elseif(array_key_exists($dataInput, $accessData))
{
    $WrongSerialNo = "Serial Number Already Exists! Please Enter again!";
}
```

When user press "submit" button, server side will get all the data from user input and store them in the variables.

- To do the Serial-No validation, we use **substr() function** to get the First 2 digits of serial no & Last 2 digits of Manufacturing Year.
- And Read the data from "BikesforSale.txt" file and using **array_key_exists () function** checking duplicate Serial No.
- Validate all the user input (Serial No, Year, phone , email) using **preg_match() function**.

```php
else
{
    echo "";
    $serialNo = $_POST['serialNo'];
    $type = $_POST['type'];
    $year = $_POST['year'];
    $chara = $_POST['chara'];
    $condition = $_POST['condition'];
    $name = $_POST['name'];
    $phone = $_POST['phone'];
    $email = $_POST['email'];

    $BikeTxt = $serialNo . "," . $type . "," . $year . "," . $chara . "," . $condition . "," . $name . "," . $phone . "," . $email."\n" ;

    //Write the data to the "BikesforSale.txt" file
    $myfile = fopen("BikesforSale.txt", "a") or die ("Unable to open file!");    //Append data to the file
    fwrite($myfile,$BikeTxt);
    fclose($myfile);
    echo "<p style='color:green; font-size:20px;'>" ."Successfully Submitted!" . "</p>";
}
}
```

If all the data were entered correctly, then write those data to the "BikesforSale.txt" file by using fwrite() function.

```php
<?php
    if (isset($serialNoError)){ ?>
        <p><?php echo "<p style='color:red; font-size:20px;'>". $serialNoError; ?></p>
    <?php } ?>

    <?php
    if(isset($serialNoError2)){ ?>
        <p><?php echo "<p style='color:red; font-size:20px;'>".$serialNoError2; ?> </p>
    <?php } ?>

    <?php
    if(isset($PhoneError)){ ?>
        <p><?php echo "<p style='color:red; font-size:20px;'>".$PhoneError; ?> </p>
    <?php } ?>

    <?php
    if(isset($YearError)){ ?>
        <p><?php echo "<p style='color:red; font-size:20px;'>".$YearError; ?> </p>
    <?php } ?>

    <?php
    if(isset($emailErr)){ ?>
        <p> <?php echo "<p style='color:red; font-size:20px;'>".$emailErr; ?> </p>
    <?php } ?>

    <?php if ( isset($WrongSerialNo)){?>
    <p> <?php echo "<p style='color:red; font-size:20px;'>".$WrongSerialNo; ?> </p>
    <?php }?>
```

Display the specific Error Message on the user interface based on the validation.

**SearchBike.php**



Figure-4

Display all the available Bike Lists as the above Figure-4.

## Code Explanation

```php
<?php
$listheader = array("Serial No", "Bike Type", "Year of Manufacuture", "Characteristics", "Condition","Seller Name", "Phone No", "Email" );
$row = 0;
if(file_exists("BikesforSale.txt") &&($fp = fopen("BikesforSale.txt", "r"))!== FALSE)
{
    while(($data = fgetcsv($fp, 1000, ","))!== FALSE){
        $num = count($data);
        //See what system has read
        for ($c= 0; $c < $num; $c++)
        {
            // echo "<label>". "<span class='header'>". $listheader[$c]. ":" . "</span>".
            //"<span>".$data[$c]. "</span>". "</label>". "<br>" ;

            echo "<table style = \"width: 100%; border = 1;\">";
            echo "<tr>";
                echo "<th style = \" text-align: left; width: 50%;\">". $listheader[$c] . "</th>";
                echo "<td style=\" text-align:left; \">". $data[$c]. "</td>";
            echo "</tr>";
            echo "</table>";
        }
        echo "<br>";
    }
    fclose($fp);   //Close the file
}
else{
    echo "No Such file". "<br>";
}
?>
```

- Check if the file exists and Read all the data from "BikesforSales.txt" file  by using **fgetcsv() function** to parses the line it reads for fields in CSV format and returns all the data in an array.
- If exist, Display the data in a table form on the website.

**SearchResult.php**

- Search the Specific Bike by entering Bike Serial No

### Search Bike

**Search By Serial No:**

12-999-bbb    **Search**

| | |
|---|---|
| Serial No | 12-999-bbb |
| Bike Type | Others |
| Year of Manufacuture | 2012 |
| Characteristics | NA |
| Condition | NA |
| Seller Name | TING TING |
| Phone No | 92448716 |
| Email | wutingying.wty@gmail.com |

### Bike Result:

## 12-999-bbb

**Serial No:** 12-999-bbb

**Bike Type:** Others

**Year of Manufacuture:** 2012

**Characteristics:** NA

**Condition:** NA

**Seller Name:** TING TING

**Phone No:** 92448716

**Email:** wutingying.wty@gmail.com

**No of buyer(s) interested in this product: 1**

Home
Add Bike
Search Bike
Buyer Interest

## Code Explanation

```php
<div class="SearchBike">
    <h1><b>Bike Result: </b></h1>
        <?php
$serialNo = $_POST["serialNo"];
echo "<h1>" . "<u>". $serialNo. "</u>"."</h1>". "<br>";

    $listError = "Bike Serial No Not found!";

    //If Empty input
    if(empty($_POST["serialNo"])){
        $listError = "Please Enter the Product Serial No!";
    }
    //Else , Check the Serial No
    else{
        $serialNo = $_POST["serialNo"];
        $listheader = array("Serial No", "Bike Type", "Year of Manufacuture", "Characteristics", "Condition","Seller Name", "Phone No", "Email" );
        $productID = [];
        $row = 0;
        //Read "BikesforSale.txt" file
        if(($fp = fopen("BikesforSale.txt", "r")) !== FALSE){
            while(($d = fgetcsv($fp,1000,","))!== FALSE){
                $num = count($d);
                $productID[$row] = $d[0];   //Get every row of Product Serial No
                $row++;
            }
        }
        rewind($fp);
```

```php
        //Read data from Buyer Int - "ExpInerest.txt" file
        $BproductID = [];
        $row2 = 0;
        $BuyerCount = 0;
        if(($Bfile = fopen("ExpInterest.txt", "r"))!== FALSE){
            while($Bdata = fgetcsv($Bfile, 1000,",") ){
                $num2 = count($Bdata);
                $BproductID[$row2] = $Bdata[0];   //Get every row of Product Serial No
                $BuyerCount += substr_count($Bdata[0],$serialNo); //Count the nos of times "SerialNo" occurs in the string
                $row2++;
            }
        }
        rewind($Bfile);
```

- After user entered the specific Serial No, server will check the Serial No it exists in the "BikesforSale.txt" file or not.
- Read the data from "BikesforSale.txt" file and get every row of Bike Serial No and store those data in the array productID[ ] .
- Read the data from "ExpInterest.txt" file and get every row of Bike Serial No and store those data in the array BprodutctID[ ].
- Add one more variable $count , to count the nos of buyers from the file .
  (By using **substr_count() function** , we passed the below parameters:
  "$Bdata[0] → Serial No from the file
  $serialNo"  → Serial No from user Input )

```php
//Display the data
$c = 0;
$row1 = 0;
$validator = false;
for ($i=0; $i < $row; $i++) {          //Loop through the row from BikesforSale.txt
    if ($productID[$i]==$serialNo) {   //If Serial No from BikesforSale.txt == userInput
        $validator = true;
    if ($validator) {
        while(($data = fgetcsv($fp,1000,",")) !==false){//Get all the data from "BikesforSale" file
            if ($row1==$c) {
                $num1 = count($data);
                for ($a=0; $a < $num1 ; $a++) {
                    $listError = "";
                    echo "<label>" . "<span style='font-size:20px; color:blue;'>" .  $listheader[$a] . ": " . "</span>" ."<span>" . $data[$a] . "
                }
                echo "<label>" . "<span style='font-size:20px; color:blue;'>" . "No of buyer(s) interested in this product" . ": " . "</span>"
            }
            $row1++;
        }
    }
    }
    else
    {
        $c++;
    }
}
fclose($fp);
fclose($Bfile);
}
```

- Display the specific data when the user Serial No input is same as serial No from "BikesforSale.txt" file.

**BuyerInterest.php**



- Ask the user to fill all the field before submitting the form

## Buyer Interest

**Found the Serial No.**

**Successfully Submitted!**

**Bike Serial No:**

yy-nnn-ccc

**Propose Price ($):**

**Name:**

**Phone No:**

**Email:**

submit

- If user input no format error and duplicate Serial No, then display successfully submitted.

## Buyer Interest

**Serial Number Doesn't Exists! Please Enter again!**

**Bike Serial No:**

yy-nnn-ccc

**Propose Price ($):**

- Otherwise, will display an error as above.

## Code Explanation

```php
<div class="BuyerInterest">
    <h1><b>Buyer Interest</b></h1>
    <?php

      if (isset($_POST['submit']))
      {
          //Read the data from "BikesforSale.txt" file
          $data = file('BikesforSale.txt');
          $accessData = array();
          foreach($data as $line){
              list($id,$type) = explode(',', $line);
              $accessData[trim($id)] = trim($type);
              //echo $id. "<br>";
          }
          //Parse from user input
          $dataInput = isset($_POST['serialNo'])? $_POST['serialNo']:'';

          //Variable to store the data entered by the user
          $serialNo = $_POST['serialNo'];
          $price = $_POST['price'];
          $name = $_POST['name'];
          $phone = $_POST['phone'];
          $email = $_POST['email'];
```

```php
        //Validate the Serial No format
        if(!preg_match("/^[0-9]{2}-[0-9]{3}-[a-z]{3}$/", $serialNo)){
            $serialNoError = "Invalid Serial No Format! Please Enter again!";
        }
        //Validate the Phone No format
        elseif(!preg_match("/^[6|9|8][0-9]{7}$/",$phone)){
            $PhoneError = "Invalid Contact No Format!Please Enter again!";
        }
        //Validate Price
        elseif(!preg_match("/^[1-9][0-9]*$/",$price))
        {
            $priceError = "Invalid Price! Please Enter again!";
        }
        //Validate Email address
        elseif (!filter_var($email, FILTER_VALIDATE_EMAIL)) {
            $emailErr = "Invalid Email format! Please Enter again!";
        }
```

- After user press the "Submit" button, server will get all the user input and check accordingly.
- First, Read the data from "BikesforSale.txt" file and get the Serial No and store it in an array called $accessData [ ] .
- Validate all the input data by using **preg_match() function**.

```php
//Check serialNo its exists or not
elseif (array_key_exists($dataInput, $accessData) )
{
        echo "";
        $serialNo = $_POST['serialNo'];      // Get the user input
        $price = $_POST['price'];
        $name = $_POST['name'];
        $phone = $_POST['phone'];
        $email = $_POST['email'];


        $AddInterest = $serialNo.",". $price. ",". $name . "," .$phone . "," . $email. "\r\n";
        $buyerFile = "ExpInterest.txt";

        //Write the data to the "ExpInterest.txt" file
        $myfile = fopen($buyerFile, "a") or die ("Unable to open file!");      //Append data to the file
        fwrite($myfile,$AddInterest ."\n");
        fclose($myfile);
        echo "<p style='color:green; font-size:20px;'>" ."Found the Serial No." . "</p>";
        echo "<p style='color:green; font-size:20px;'>" ."Successfully Submitted!" . "</p>";
}
else{
    $WrongSerialNo = "Serial Number Doesn't Exists! Please Enter again!";
}
```

- If all the data are entered correctly, then write those data to the "ExpInterest.txt" file.
- If not, display the error message on the website based on the validation.

```php
    <br>
<?php
        if (isset($serialNoError)){ ?>
            <p><?php echo "<p style='color:red; font-size:20px;'>". $serialNoError; ?></p>
    <?php } ?>
        <?php
        if(isset($PhoneError)){ ?>
            <p><?php echo "<p style='color:red; font-size:20px;'>".$PhoneError; ?> </p>
    <?php } ?>
        <?php
        if(isset($emailErr)){ ?>
            <p> <?php echo "<p style='color:red; font-size:20px;'>".$emailErr; ?> </p>
    <?php } ?>

        <?php if ( isset($WrongSerialNo)){?>
        <p> <?php echo "<p style='color:red; font-size:20px;'>".$WrongSerialNo; ?> </p>
        <?php }?>

        <?php if ( isset($priceError)){?>
        <p> <?php echo "<p style='color:red; font-size:20px;'>".$priceError; ?> </p>
        <?php }?>
```