I3302 E
Web Development server side

Partial Exam
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Duration: 60 min
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Problem I (22 pts)

We are interested in implementing a car buying system using PHP. For that, you need to write a single page named **buyCars.php** that will use a set of functions written in the **functions.php** file.
The data is stored in the file: **cars.txt**.

Each car purchased is on a line and in the form: name,model,color,cylinder
Example: Karam,Rav4,Blue,4

For each question, you should use the functions already written in the previous questions.
Only at the first access to the page, cars contained in **cars.txt** must be loaded in the session.
*You should maintain, after each operation, the synchronization between the session and the file **cars.txt**.*

The following functions can be used in your code:
– *array explode(string $delimiter, string $string)*: Returns an array of strings, each of which is a substring of the $string parameter retrieved using the $delimiter separator.
– *bool asort (array &$array)*: sorts an array following the values; returns true on success or false if an error occurs.
– *bool ksort (array &$array)*: sorts an array following the keys; returns true on success or false if an error occurs.

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1. Write the function **dispBuyCar($c)** that allows a customer to purchase and customize its car on the TOYOTA website. This function allows you to display "select" menus from a multidimensional associative array **$allcars**, as shown in the example below.

```
$allcars = array("model"=>array("Rav4","Carina","Camry"),
                 "color"=>array("red","blue","white"),
                 "cylinder"=>array(4,6,8));

dispBuyCar($allcars);
```


Welcome to Toyota. Buy a car:

Your name: [_____]
Choose your car:
model Rav4 ▾

color red ▾

cylinder 4 ▾

[Buy]

2. Write the function **save($t)** which takes an associative array (as shown below) as parameter and write it to the **cars.txt** file (regardless of the size of the array).

```
array (size=2)
  'Ahmad' =>
    array (size=3)
      'model' => string 'Rav4' (length=4)
      'color' => string 'Red' (length=3)
      'cylinder' => string '4' (length=1)
  'Sara' =>
    array (size=3)
      'model' => string 'Carina' (length=6)
      'color' => string 'Red' (length=3)
      'cylinder' => string '4' (length=1)
```

3. The button **Buy** (name=newcar, value=Buy) adds a new car to the file **cars.txt**. Write the function **addCar($name, $model, $color, $cylinder)** to perform this task.

4. Write the function **load()** that loads the contents of the file **cars.txt** into a session of the form shown above.

5. Write the function **delete($t)** that deletes one or multiple cars. We delete cars from the session and update the file **cars.txt**.

6. Write the function **sortCars($t)** that sorts the superglobal associative array session either by key or by value, according to the value of the **$t** parameter.

Name	Model	Color	Cylinder	Delete
Ahmad	Rav4	Red	4	☐
Sara	Carina	Red	4	☐
				delete

7. Using the file **functions.php** (i.e. the functions already written in the previous questions), write the **buyCars.php** page.

```php
<?php
// Some php code here
...

// associative array used to buy a new car
$allcars = array("model"=>array("Rav4","Carina","Camry"),
                 "color"=>array("red","blue","white"),
                 "cylinder"=>array(4,6,8));

// Prepare the array to be filled by the session
...

// Load the file into session for the first time
...

// Insert new car
...

// Delete all checked cars
...

// Sort the session on names or models
...

?>
```

```html
<!-- html/php code to display the session -->
<form action="<?php ... ?>" method="post">
<table border='2'>
<tr><th><a href="...">Name</a></th>
    <th><a href="...">Model</a></th>
    <th>Color</th><th>Cylinder</th><th>Delete</th></tr>
<!-- Display the session -->
<?php
...
?>
<tr><td colspan="4"> </td>
<td><input type="submit" name="del" value="delete"></tr>
</table>
</form>

<!-- Display the form to buy a new car -->
<form action="<?php ... ?>" method="post">
<h2>Welcome to Toyota. Buy a car:</h2>
<?php dispBuyCar($allcars); ?>
<input type="submit" name="newcar" value="Buy">
</form>
```

Good luck