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<html>
  <head>
    <title>
      AIIP HW2 Demo
    </title>

  </head>
  <body>
    <h2> PHP 7 Object Oriented Design (Zebo Xiong)</h2>
    <form name="form_hw2" method="POST">

      <input type="radio" name="funcs_hw2" value="rmRow" >rmRow<p>

      <input type="radio" name="funcs_hw2"
value="rmAssocArray" >rmAssocArray<p>

      <input type="radio" name="funcs_hw2" value="addCol" >addCol<p>

      <input type="radio" name="funcs_hw2" value="rmCol" >rmCol<p>

      <input type="radio" name="funcs_hw2" value="renameCol" >renameCol<p>

      <input type="submit" name="submit" value="submit">
    </form>
  </body>
</html>

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<?php
    if (isset($_POST['submit']))
    {
        $testObj = new table(array(
            "a",
            "b",
            "c"
        ));

        $testObj->addRow(array(
            7,
            8,
            9
        ));

        $testObj->addRow(array(
            5,
            6,
            7
        ));

        $testObj->addRowAssocArray(array(
            "b" => 0,
            "a" => 6,
            "c" => 3
        ));

        $zebo_POST = $_POST['funcs_hw2'];
    }

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if ($zebo_POST == 'rmRow')
{
    print "Before\n";
    $testObj->output();

    print "After\n";
    $testObj->rmRow(array(
        7,
        8,
        9
    ));

    $testObj->output();
}

else if ($zebo_POST == 'rmAssocArray')
{
    print "Before\n";
    $testObj->output();

    print "After\n";
    $testObj->rmRowAssocArray(array(
        "b" => 0,
        "a" => 6,
        "c" => 3
    ));

    $testObj->output();
}

else if ($zebo_POST == 'rmCol')
{
    print "Before \n";
    $testObj->output();

    print "After\n";
    $testObj->rmCol("a");

    $testObj->output();
}

else if ($zebo_POST == 'addCol')
{
    print "Before ${s}\n";
    $testObj->output();

    print "After add null column";
    $testObj->addCol("m");

    $testObj->output();

    print "After add null column k";
    $testObj->addCol("g", k);
    $testObj->output();
}

else if ($zebo_POST == 'renameCol')

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        {
            print "Before \n";
            $testObj->output();

            print "After renaming 1 column";
            $testObj->renameCol("b");
            $testObj->output();

            print "After renaming multiple columns";
            $testObj->renameCol("a", "b", "c");
            $testObj->output();
        }
    }
}

?>

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<?php
class Table
{
    var $table_array = array();
    var $headers = array();
    var $cols;

    function Table($headers)
    {
        $this->headers = $headers;
        $this->cols = count($headers);
    }

    function addRow($row)
    {
        if (count($row) != $this->cols) return false;
        array_push($this->table_array, $row);
        return true;
    }

    function addRowAssocArray($row_assoc)
    {
        $row = array();
        foreach ($this->headers as $header)
        {
            if (!isset($row_assoc[$header]))
                $row[] = $row_assoc[$header];
        }
        array_push($this->table_array, $row);
        return true;
    }

    function rmRow($row)
    {
        if (in_array($row, $this->table_array))
            foreach ($this->table_array as $key => $value)
            {
                print "key= " . $key;
                if ($row === $value)
                    unset($this->table_array[$key]);
            }
    }
}

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    }

}

function rmRowAssocArray($row_assoc)
{
    $row = array();

    foreach ($this->headers as $header)
    {
        if (!isset($row_assoc[$header]))
            $row_assoc[$header] = "";

        $row[] = $row_assoc[$header];
    }

    foreach ($this->table_array as $key => $value) {
        if ($row === $value)
            unset($this->table_array[$key]);
    }
}

function addCol($colName, $col_Value = "null")
{
    if (!in_array($colName, $this->headers))
    {
        $this->headers[$this->cols] = $colName;

        foreach ($this->table_array as $key => $value)
        {
            $this->table_array[$key][$this->cols] =
                $col_Value;
        }
    }
}

function rmCol($colName)
{
    if (in_array($colName, $this->headers)) {
        $index = array_search($colName,
            $this->headers);
    }

    unset($this->headers[$index]);

    foreach ($this->table_array as $key => $value) {
        unset($this->table_array[$key][$index]);
    }
}

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function renameCol()
{
    $k = 1;

    foreach (func_get_args() as $aaa)
    {
        if (in_array($aaa, $this->headers))
        {

            $k = $k + 1;

            $index = array_search($aaa,

$this->headers);

            $this->headers[$index] = $k;

        }

        else
        {
            print "\n No such {$aaa} column";
            break;
        }

        print "\n";
    }
}

function output()
{
    print "<pre>";
    foreach ($this->headers as $header) print "<b>$header

</b> ";

    print "\n";
    foreach ($this->table_array as $y)
    {
        foreach ($y as $xcell) print "$xcell ";
        print "\n";
    }
    print "</pre>";
}

?>

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