

Solutions:

## 1. CSS

```
div {
    margin: 5px;
}
#gallery > img {
    width: 60px;
    height: 60px;
    margin: 10px;
}
#gallery {
    width: 20%;
}
p {
    background-color: yellow;
    padding: 20px;
}
#bigPic {
    width: 75%;
}
#bigPic > div {
    clear: left;
    border: none;
}
#gallery, #bigPic {
    float: left;
}
#more {
    clear: left;
}
#contentArea {
    width: 90%;
    margin-left: auto;
    margin-right: auto;
    background-color: white;
}
body {
    background-color: gray;
}
h3 {
    text-align: right;
}
div, h3 {
    border: 2px black solid;
}
```

## 2. PHP

```
<?php
if ($_SERVER["REQUEST_METHOD"] == "POST") {
    if (!isset($_POST["word"]) || !preg_match("/^[a-zA-Z]+$/",
$_POST["word"])) {
        header("HTTP/1.1 400 Invalid Request");
        die();
    }

    $badword = strtolower($_POST["word"]);
    $lines = array();
    foreach (file("text.txt", FILE_IGNORE_NEW_LINES) as $line) {
        $badline = FALSE;
        $words = explode(" ", $line);
        foreach ($words as $word) {
            if (strtolower($word) == strtolower($badword)) {
                $badline = TRUE;
            }
        }
        if (!$badline) {
            $lines[] = $line;
        }
    }
    file_put_contents("text.txt", implode("\n", $lines));
}
?>

<form action="" method="post">
    <div>Word to remove:
        <input type="text" name="word" />
        <input type="submit" value="Submit" />
    </div>
</form>

<p>Current file text:</p>
<pre><?= file_get_contents("text.txt") ?></pre>
```

3.

```
<?php
```

```
$start = $_GET["start"];
$end = $_GET["end"];

$file = file("classes.txt");

$classCount = 0;
$classes = array();
for($i = 0; $i < count($file); $i++) {
    #CSE154 1:30 2:30 250 250 Web Programming
    $split = split(" ", $file[$i], 6);

    if($split[1] == $start && $split[2] == $end) {
        $classCount++;
        if($split[3] < $split[4]) {
            $class = array("code" => $split[0],
                "spaces" => ($split[4]-$split[3]),
                "name" => $split[5]);
            $classes[] = $class;
        }
    }
}
$all = array("count" => $classCount, "classes" =>$classes);

header("Content-type: application/json");
print(json_encode($all));
```

```
?>
```

4.

```
window.onload = function() {
    document.getElementById("search").onclick = search;
}

function search() {
    document.getElementById("count").innerHTML = "";
    document.getElementById("results").innerHTML = "";
    var start = document.getElementById("start").value;
    var end = document.getElementById("end").value;
    var request = new XMLHttpRequest();
    request.onload = processData;
    request.open("GET", "classes.php?start=" + start +
                "&end=" + end, true);
    request.send();
}

function processData() {
    var data = JSON.parse(this.responseText);
    for(var i = 0; i < data.classes.length; i++) {
        var item = document.createElement("li");
        item.innerHTML = data.classes[i].name + " - " +
                        data.classes[i].spaces + " spaces"
        document.getElementById("results").appendChild(item);
    }
    document.getElementById("count").innerHTML = data.count +
                " total classes offered";
}
```

5.

a) /^#[A-Za-f0-9]{6}\$/

b) /^5[1-5][0-9]{14}\$/

c) /^[1-9]|10|11|12):[0-5][0-9] (A|P)M\$/