



## Sample: AJAX JavaScript HTML PHP - Temperature Meter

```
<html>
  <head>
    <title>Result</title>
    <style>td {text-align: center}</style>
  </head>
  <body>
    <h1>
      Heat Index Table
    </h1>

    <?php

function heatIndexCalc($temperature, $humidity) {
    $result = -42.379 + (2.04901523 * $temperature) + (10.14333127 * $humidity) -
        (0.22475541 * $temperature * $humidity) - (6.83783 * 0.001 * $temperature *
$temperature) -
        (5.481717 * 0.01 * $humidity * $humidity) + (1.22874 * 0.001 * $temperature *
$temperature * $humidity) +
        (8.5282 * 0.0001 * $temperature * $humidity * $humidity) - (1.99 * 0.000001 *
$temperature * $temperature * $humidity * $humidity);
    if ($temperature >= 80 && $temperature <= 87 && $humidity > 85) {
        $result+=(($humidity - 85) / 10) * ((87 - $temperature) / 5);
    }
    return $result;
}

function heatIndexDisplay($result) {
    if ($result > 126) {
        printf("<td bgcolor='FF0000'> %.1f</td>", $result);
    } else {
```



```
        printf("<td bgcolor='FFFF00'> %.1f</td>", $result);
    }
}

function chkData($startValue, $endValue, $temperatureValue) {
    $checker = true;
    if (!is_numeric($startValue)) {
        echo "<h5>Relative Humidity START, NOT numeric</h5>";
        $checker = false;
    }
    if (!is_numeric($endValue)) {
        echo "<h5>Relative Humidity END, NOT numeric</h5>";
        $checker = false;
    }
    if (!is_numeric($temperatureValue)) {
        echo "<h5>Air Temperature End is not numeric</h5>";
        $checker = false;
    }
    if (!$checker) {
        echo "PLEASE PRESS BACK BUTTON TO RE-ENTER";
    }
    return $checker;
}

$startValue = $_GET[startValue];
$endValue = $_GET[endValue];
$temperatureValue = $_GET[temperatureValue];
if (chkData($startValue, $endValue, $temperatureValue)) {
    $temp;
    $verticalAdditional = false;
}
```



```
echo "<h4>Relative Humidity from " . $startValue . "% to " . $endValue . "%</h4>";
echo "<h4>For Air Temperature from: " . 80 . "&degF to " . $temperatureValue . "&degF</h4>";
echo "<table border='1' width='100%'>";
echo "<tr><th bgcolor='00FFFF'>Air temp/<br/>Rel. Humidity(%)</th>";
for ($i = 80; $i < $temperatureValue; $i+=4) {
    printf("<th bgcolor='00FFFF'>%.1f&degF</th>", $i);
    $temp = i;
}
if ($temp != $temperatureValue) {
    printf("<th bgcolor='00FFFF'>%.1f&degF</th>", $temperatureValue);
    $verticalAdditional = true;
}
echo "</tr>";
for ($i = $startValue; $i < $endValue; $i+=5) {
    $temp = i;
    echo "<tr><th bgcolor='008000'>" . $i . "%</th>";
    for ($j = 80; $j < $temperatureValue; $j+=4) {
        $result = heatIndexCalc($j, $i);
        heatIndexDisplay($result);
    }
    if ($verticalAdditional) {
        $result = heatIndexCalc($temperatureValue, $i);
        heatIndexDisplay($result);
    }
    echo"</tr>";
}
if (temp != $endValue) {
    echo "<tr><th bgcolor='008000'>" . $endValue . "%</th>";
    for ($j = 80; $j < $temperatureValue; $j+=4) {
```



```
        $result = heatIndexCalc($j, $endValue);
        heatIndexDisplay($result);
    }
    if ($verticalAdditional) {
        $result = heatIndexCalc($temperatureValue, $endValue);
        heatIndexDisplay($result);
    }
    echo "</tr>";
}
}
?>
</table>
</body>
</html>
```