

SOA Conditional Get- Code Report- 2020

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PHP – Server

Function getDiseases()

Called on page load or on click of refresh button.

Starts off with Boolean notModified = false. If statement, then to see if the If Modified Since Header is set. If it is then a variable requestedDate is equals to the If Modified Since date and time. If requestedDate is greated than(so more recent) the date returned in the function getLastModified(), then the boolean not modified is true.

New if statement, if notModified is true, then send the header: "HTTP/1.1 304 NOT MODIFIED", end the function here, as no call to the database is necessary because we have the most up to date database table. If notModified is false, then make a call to the database fetching the latest values in the table. Send the header last-modified to be equal to the date and time returned by getLastModified(), and send the returned SQL data to the client in JSON format.

```
$notModified = false;
if (isset($_SERVER['HTTP_IF_MODIFIED_SINCE'])) {
    $requestedDate = strtotime($_SERVER['HTTP_IF_MODIFIED_SINCE']);
    if ($requestedDate >= getLastModified()) {
        $notModified = true;
    }
}

if ($notModified) {
    header("HTTP/1.1 304 NOT MODIFIED");
    header('last-modified: ' . gmdate(DATE_RFC850, getLastModified()));
    exit;
} else {
    $query="select * FROM disease ORDER BY name";
    try{
        global $db;
        $diseases = $db->query($query);
        $diseases = $diseases->fetchAll(PDO::FETCH_ASSOC);
        header('last-modified: ' . gmdate(DATE_RFC850, getLastModified()));
        echo '{"disease": ' . json_encode($diseases) . '}';
    }
}
```

Function getLastModified()

Executes a query: SELECT timestamp from disease order by timestamp DESC LIMIT 1. This gets us the date and time of our most recent change to the database. This date is returned then to where it was called as a variable theDate.

```
$query = "SELECT timestamp from disease order by timestamp DESC LIMIT 1";
try{
    global $db;
    $diseases = $db->query($query);
    $diseases = $diseases->fetch(PDO::FETCH_ASSOC);
    $theDate = strtotime($diseases['timestamp']);
    return $theDate;
}
```

JavaScript - Client

Function findAll()

Called when the refresh button is clicked and sends an Ajax request to the server. The request will be a GET, containing header ifModified: true. If this is successful, the status code, status text, and last modified header is appended to the HTML page. When the status code is 304 Not Modified, nothing else is done as there is no need to get anything from the database. If the status code is 200 then the renderTable() function is called.

```
$.ajax({
    type: 'GET',
    url: rootURL,
    dataType: "json",
    ifModified: true,
    success: function(data, status, xhr) {
        document.getElementById('statusOnly').innerHTML = xhr.status + ' ' +
        xhr.statusText;

        document.getElementById('statusTime').innerHTML = '(Status: ' + xhr.status
        + ' ' + xhr.statusText + ')\nLast Modified: ' + xhr.getResponseHeader("last-
        modified");
        if (xhr.status == 200) {
            renderTable(data);
        }
    },
},
```

Function renderTable()

renderTable takes in the data returned by the server that contains the most up to date SQL table. The columns and rows are looped through and appended to the HTML table.

```
list=data.disease;
$.each(list, function(index,disease){

$('#tableBody').append('<tr><td>'+disease.id+'</td><td>'+disease.name+'</td><td>'+
disease.infected+'</td><td>'+disease.death toll+'</td><td>'+disease.timestamp+'</td>
</tr>');
});
```

