

# USER ACTION ITEMS FEATURE

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## Introduction

With the HTSB website being the place where educators apply for or renew teaching licenses, there is a problem with keeping track of what actions need to be taken to complete all the steps of getting approved for a new license. This could be a mobile phone number, an email, a government issued id, etc. An action item alert system needs to be put in place to let the user know what actions they need to take on, and a quick and easy way for admin to add new action items in a quick and extendable way, such as adding a new action item to a database table would update the website immediately. Each action item must include a title describing the action, a validation SQL field which is a SQL query which will run in the backend to check if this action item applies to the user, and a URL to the page that the user can resolve the action. An action item alert box should appear above the profile home page, as well as individual pages containing those actions. Admin should also be able to view, edit, and delete action items in its own page.

## Action Item Profile Home Page

The screenshot shows the HTSB Profile Home Page. At the top, there's a yellow banner with a placeholder phone number (444444444444444444) and a 'Send Message to This User' button. Below the banner, the profile information for a user with ID 5 is displayed, including their name (333333 5) and a note about 14 profiles. A navigation bar includes links for Home, Email, Contact HTSB, Applications, Documents, Licenses/Permits, Tests/Certs, Security, Notes, and Fees/Payments. A 'Merge Transactions' button is also present. The main content area features a red header 'My Action Items' with the sub-instruction 'Please click on the links below to take action on your action items.' Below this, five action items are listed with icons: a mobile phone for 'Please Add a Mobile Phone', an envelope for 'Please Add a Personal Email Address', an envelope for 'Please Verify Your Personal Email Address', a document for 'Please Upload a Government Issued ID to Verify Your Identity. When uploading, please choose document type "Government Issued ID"', and a card for 'Please Upload a Social Security Card to Verify Your Identity. When uploading, please choose document type "Social Security Card"'. At the bottom, a blue header 'My HTSB Transaction History' leads to a table showing a single transaction entry: 'Document Uploaded: Government Issued ID - gtest' from 'HTSB' on '04/21/2024 09:48'.

## Methodology

The agile project management process was used where everyone worked in their own branches and then merged. Since this was an individual project, I took on the responsibilities of all the team roles while making sure not step on anyone else's toes on the website.

## Solution

The model, view, controller design pattern was used to solve this problem. A database table was created for the action items in MySQL and the PHP Slim Framework was used as the controller to present the view (developed in HTML, JavaScript, and CSS) with the data of the action items, when it applied.



## Action Item Admin View

The screenshot shows the 'Action Item Admin View' interface. It features a table titled 'Action Items' with the following columns: Display Title, Validation SQL, URL, Effective Date, Expiration Date, Sort Sequence Number, Create Date, Create ID, Update Date, Update ID, and Actions. The table contains five rows of data, each representing an action item with its corresponding validation SQL query, URL (e.g., /profile/phone, /profile/email, /profile/document), and creation/update dates.

## Action Item Admin Edit View

The screenshot shows the 'Action Item Admin Edit View' interface. It displays a form for editing an action item. The form includes fields for 'Display Title' (containing 'Please Add a Mobile Phone'), 'Validation SQL' (containing 'SELECT COUNT(\*) AS count FROM phones WHERE phone\_type\_cd = "MOBILE" AND user\_id = <?>user\_id'), 'URL' (containing '/profile/phone'), 'Effective Date' (containing '04/19/2024'), 'Expiration Date' (containing '04/21/2024'), 'Sort Sequence Number' (containing '1'), and 'Action Item Type' (containing ''). There are also 'Cancel' and 'Save Action Item Changes' buttons at the bottom.

## Challenges and Learnings

During this project, I faced the challenge of learning various new technologies to me such as PHP and MySQL. Throughout the project I recognized how my SQL database management skills were not as strong as I thought. This posed as a problem at the beginning of this internship, but I was able to overcome with much practice and now I feel very confident in managing SQL databases such as doing joins on many tables. I also learned a lot about session and cookies and when to use them. The action items were stored in session to persist across pages, and I learned how to manage this session throughout the process such as refreshing the session when an action was resolved, or adding an action to session when an action is now required. Overall, working in a practical setting was the biggest aspect I took away from this!