January 27, 2017

Verbat Logo

Review & Recommendations for Application Development of the Construction Project Management Application



**IEAG Digital**

Construction Project Management

**Revision** **History**

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| --- | --- | --- | --- |
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| 027 Jan 2017 | 1.0 | Draft Version | Prashant Thomas |
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**Document Approvals**

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# Application (Source Code) Review

An in depth analysis of the source code was not conducted because of limitations in time. Instances of application code/logic issues are cited below as an example that could be applied to the rest of the application. After reviewing the source code, we recommend that the following changes. Please not that some suggestions were made based on potential future functionality as it may not have been implemented yet.

## Transmittal Letter

### Section of code written after HTML closing tag

**Category**: Code written outside scope

**Weakness**: HTML code or JavaScript file loaded will not work if it is not inside scope (Inside HTML tags - <html></html>).

|  |  |  |  |
| --- | --- | --- | --- |
| Source File | Line Number | Description | Risk |
| add-transmittal.php | 991 | In line number 991, “footer-script.php” loaded and modals loaded after that line. | Low |

|  |  |
| --- | --- |
| Current Code | Suggestion |
| <!-- footer-script -->  <?php include\_once("include/footer-script.php"); ?>  <!-- /footer-script -->  <!-- Modals -->  <?php include\_once("include/modal.php"); ?>  <!-- /Modals --> | <!-- Modals -->  <?php include\_once("include/modal.php"); ?>  <!-- /Modals -->  <!-- footer-script -->  <?php include\_once("include/footer-script.php"); ?>  <!-- /footer-script --> |

This issue is also in these pages: edit-transmittal.php, response-transmittal.php, transmittal-letter.php, report-transmittal.php

### Comments contain unwanted code

**Category**: Code written inside comments

**Weakness**: The codes inside comments will confuse the developer. Comments should clearly describe what the code does.

|  |  |  |  |
| --- | --- | --- | --- |
| Source File | Line Number | Description | Risk |
| transmittal-letter.php | 452 | In line number 452, some unwanted codes were commented. Remove the code from the page if it is not required. This issue not only in 452, there are several lines contain this problem. | Informational |

|  |  |
| --- | --- |
| Current Code | Suggestion |
| <?php /\* ?><tbody>  <?php foreach($transmittal\_letterformArr as $trans\_letter){  $tramsmittal\_id= $trans\_letter['id']; $flag\_status="";  $user\_status="";  $response\_from="";  ………..  ………..  <?php \*/ ?> | Remove unwanted code from comments. |

This issue is also in these pages: add-transmittal.php , edit-transmittal.php, response-transmittal.php, report-transmittal.php

### Unused code

**Category**: Unused code written

**Weakness**: Page contains unused code, which will increase the file size of the code file and the loading time of the page.

|  |  |  |  |
| --- | --- | --- | --- |
| Source File | Line Number | Description | Risk |
| include/modal.php | 935 | In line number 5, unused “Email Popup” modal is found. If it is not required in all pages remove if it is not required. | Informational |

|  |  |
| --- | --- |
| Current Code | Suggestion |
| <!-- email-popup modal -->  <div id="email-popup" class="modal fade ">  <div class="modal-dialog">  <div class="modal-content">  <div class="modal-header"> <a class="pull-right" data-dismiss="modal"><span class="btn btn-sm btn-danger pull-right" data-dismiss="modal"><i class="fa fa-remove"></i></span> </a>  <h4 class="modal-title"><i class="fa fa-envelope"></i> Email </h4>  </div>  <form id="defaultForm" method="post" class="form-horizontal form-group-lg" action="">  ………………..  ……………….  </div>  <!-- email-popup end modal --> | Modal.php is included in every page. Remove unused code from the page. |

This issue is also in all pages, which include modal.php

### Hardcode found

**Category**: Hardcoded contents inside page.

**Weakness**: Page contains hardcoded contents, which is not dynamic and not useful. It contains dummy text also.

|  |  |  |  |
| --- | --- | --- | --- |
| Source File | Line Number | Description | Risk |
| include/modal.php | 20 | In line number 20, the “Email Popup” modal contains hardcoded content. Make it dynamic. | Low |

|  |  |
| --- | --- |
| Current Code | Suggestion |
| <select id="email-to" multiple="multiple" class="form-control multiple-select-search multiple-select-lg">  <option value="1">Option 1</option>  <option value="2">Option 2</option>  <option value="3">Option 3</option>  <option value="4">Option 4</option>  <option value="5">Option 5</option>  <option value="6">Option 6</option>  </select> | Make hardcoded contents dynamic. |

This issue is also in all pages, which include modal.php

## Safety Record

### Use PHP code instead of JavaScript for page redirection

**Category**: Wrong page redirection

**Weakness**: Used JavaScript’s window.location instead of PHP’s header method. It will cause delay.

|  |  |  |  |
| --- | --- | --- | --- |
| Source File | Line Number | Description | Risk |
| edit-safety-record.php | 23 | In line number 23, javascript used for page redirection. Use PHP header method, which is commented in above line. | Informational |

|  |  |
| --- | --- |
| Current Code | Suggestion |
| <script>window.location="edit-safety-record.php?id=<?php echo $asr\_id;?>"</script> | header("Location:edit-safety-record.php?id=$asr\_id"); |

This issue is also in these pages: safety-record.php, add-safety-record.php, transmittal-letter-item-basket.php

### Section of code written after HTML closing tag

**Category**: Code written outside scope

**Weakness**: HTML code or JavaScript file loaded will not work if it is not inside scope (Inside HTML tags - <html></html>).

The same error explained in “Transmittal Letter” module.

### Comments contain unwanted code

**Category**: Code written inside comments

**Weakness**: The codes inside comments will confuse the developer. Comments should clearly describe what the code does.

The same error explained in “Transmittal Letter” module.

### Unused code

**Category**: Unused code written

**Weakness**: Page contains unused code, which will increase the file size of the code file and the loading time of the page.

The same error explained in “Transmittal Letter” module.

### Hardcode found

**Category**: Hardcoded contents inside page.

**Weakness**: Page contains hardcoded contents, which is not dynamic and not useful. It contains dummy text also.

The same error explained in “Transmittal Letter” module.

# Database Code Review

## Transmittal Form

### Transmittal\_Letter

* + Primary keys, Foreign Keys set for the table
  + Please check & set Allow Not Null to all mandatory fields and foreign key fields like project\_id, linked\_lookup\_id etc. to make sure that relationship between tables are working as expected.

### Transmittal\_Letter\_Item

* + Primary keys, Foreign Keys set for the table
  + Please check & set Allow Not Null to all mandatory fields and foreign key fields like transmittal\_letter\_id, phase\_id, status\_id, weather\_id etc. to make sure that relationship between these tables are working as expected.

### Transmittal\_Letter\_Response

* + Primary keys, Foreign Keys set for the table
  + Please check & set Allow Not Null to all mandatory fields and foreign key fields like transmittal\_letter\_id, status\_id etc. to make sure that relationship between tables are working as expected.

## Safety Record Form

### Safety\_Form

* + Primary keys, Foreign Keys set for the table
  + Please check & set Allow Not Null to all mandatory fields and foreign key fields like project\_id, phase\_id, status\_id, weather\_id etc. to make sure that relationship between tables are working as expected.

### Safety\_Form\_Cause

* + Primary keys, Foreign Keys set for the table
  + Please check & set Allow Not Null to foreign key fields like safety\_form\_id, cause\_id etc. to make sure that relationship between tables are working as expected.

### Safety\_Form\_People\_Injured

* + Primary keys, Foreign Keys set for the fields.
  + Please check & set Allow Not Null to all mandatory fields and foreign key fields like safety\_form\_id, company\_id, worker\_class\_id, injury\_type\_id, injury\_severity\_id, injured\_body\_part\_id etc. to make sure that relationship between tables are working as expected.
  + Please check if the fields need only 100 characters for the fields notes and current\_cond. If application try to save more than 100 characters it will get truncated.

### Safety\_Form\_Witness

* + Primary keys, Foreign Keys set for the fields.
  + Please check & set Allow Not Null to all mandatory fields and foreign key fields like safety\_form\_id, company\_id etc. to make sure that relationship between tables are working as expected.