**Remarks to developer**

The {} sign refers to notes to developer.

The <> sign refers to form buttons. All buttons must be squares with Flat UI design.

You have to strictly follow my database design. If there are any problems with the DB design, you can discuss with me.

3 types of users are allowed, **System Admin, Client Admin (Technical People), Client Users (Business People).**

**Main Objective Of This SAAS Product**

1. Objective is to create parent and child forms fully customized from scratch, with a one to many relationship. All fields should be customized by the users.

Example :- Invoice header (parent form) and invoice line items (Child form)

1. Every field in the parent and child forms can be maintained by the user.
2. The records captured in the form can be enabled for an approval workflow whereby the records created can be channeled through an approval workflow for approvals by the approvers. The approvers will get a notification in their inbox to approve those records.
3. Some fields in the records can be designated to be input by certain users only and only those users can input the values for those fields. Those users will get a notification in their inbox to fill those fields.

**Options** {Options will be displayed on the left side bar and will be collapsed when mouse moves away from it. During mouse hover it will reappear}

**<Search Options>**

<Created forms will be displayed above here, sectionized by form groups and form parent groups. First the parent groups will be displayed and when it is clicked sub groups under the parent groups will be shown and it can be drilled in till the final form is found. Use plus + sign to show collapsed groups and when it is expanded show minus - sign>

* Approval Inbox {The total approvals required will be shown in a red notification next to this option.}

{The following 2 tabs will be shown}

**New Records Requiring Approval | Records Approved**

**New Records Requiring Approval Tab**

|  |  |  |  |
| --- | --- | --- | --- |
| **Relative Date** | **Form Name** | **Records For Approval** | **Records Approved** |
| 1 hour ago | Invoice form | 2 | 10 |
| 2 days ago |  |  |  |

{Any forms records requiring approval will be listed above. When clicked launch the form in the same forms display format. If there are multiple approvals required from multiple forms, each form will be displayed sequentially in this table. When the user pages down more and more forms requiring approval will be loaded in the table.}

**Records Approved Tab**

|  |  |  |
| --- | --- | --- |
| **Relative Date** | **Form Name** | **Records Approved** |
| 1 hour ago |  |  |
| 2 days ago |  |  |

{Once all records are approved in a form, that form will be moved to the forms approved tab table. The approved forms should be sorted by latest to oldest.}

Input Inbox {The total inputs required will be shown in a red notification next to this option.}



{The following 2 tabs will be shown}

**New Records Requiring Input | Records Inputted**

**New Records Requiring Input Tab**

|  |  |  |  |
| --- | --- | --- | --- |
| **Relative Date** | **Form Name** | **Records For Input** | **Records Inputted** |
| 1 hour ago | Invoice Form | 3 | 10 |
| 2 days ago |  |  |  |

{Any forms records requiring input will be listed above. When clicked launch the form in the same forms display format. If there are multiple inputs required from multiple forms, each form will be displayed sequentially in this table. When the user pages down more and more forms requiring input will be loaded in the table. The fields requiring the users input will be moved to the first in the grid for better attention. The fields requiring input will also be highlighted in a contrasting background colour.}

**Records Inputted Tab**

|  |  |  |
| --- | --- | --- |
| **Relative Date** | **Form Name** | **Records Inputted** |
| 1 hour ago |  |  |
| 2 days ago |  |  |

{Once all records are inputted in a form, that form will be moved to the forms inputted tab table. The inputted forms should be sorted by latest to oldest.}

 Design Forms

 Clone User Forms

}

**Design Forms**

**<Keyword search> <Create New> <Search> <Download> <Upload> <Print>**

**<0 Hidden Columns> <Generate Code> <Generate Link> Layout Name :\_\_\_\_\_\_\_\_\_\_\_ <Save Layout> Select Layout : <Layouts> <Delete Layout>**

Reorder Column : **<Select Column>**  **Move Before :** \_\_\_\_ **Move After :** \_\_\_\_ **<Move It>**

**Selected Records Actions**

**<Edit > <Save> <Cancel> <Delete > <Duplicate> <Send Email>**

**<Copy To Form..> <Move To Form..>** {To allow copying/moving of data between forms. Specific fields can be selected to copy the data from the specific fields only. This will be a combobox showing all the forms the user has the rights to use. Only the values of matching fields will be copied and if there any unmatched fields, those values will not be copied.}

Reorder Records : **Move Before :** \_\_\_\_ **Move After :** \_\_\_\_ **<Move It>**

|  |  |  |
| --- | --- | --- |
| **FORM NAMES (Parent)** | | |
| **Column Names** | **Column Type** | **Remarks** |
| Select | Checkbox | This is used to select multiple records. |
| Form Name |  |  |
| Form Category |  | Can categorize the forms according to various categories. |
| Form Template | Combobox with values |  |
| **General** | This will be the normal forms. For other form templates, certain fields and forms will be auto created during saving as follows. If these fields are deleted by the user, the system will still auto create them during saving. |
| Internal Remarks | <Multiline edit box> | This tip will **NOT** be displayed in the form. This is only for internal remarks. |
| Form Tip | <Multiline edit box> | Form tip will be displayed in each form as a help message on how to use the form. |
| Parent Form |  | If parent form is stated then it is a child form, otherwise if it is empty then it is a parent form |
| Form Group |  | Group name for the forms to be grouped. Form Group column will enable the forms to be grouped under this group name and the groups can be grouped under the parent group. |
| Form Parent Group | <Combobox> | Parent group name for the forms. |
| Requires Any One Approval | <Form Select Values with users> | The approval will be obtained following this same order. If it is any one of the approval, any one of the users can approve. When one of the approvers have approved it, the notification in all the approvers inbox must be cleared. An email will be send to the users notifying them of the required actions. |
| Requires Every One Approval | <Form Select Values with users> | To specify all the user ids who should approve this record. An email will be send to the users notifying them of the required actions. |
| Approval Delegation | <Combobox with Yes/No> | If this is set the approval can be delegated to any users of the approvers choice. |
| Requires Any One Input | <Form Select Values with users> | To specify any one of the user ids who should input the fields. Since this is specified at the record level, the user can input into any of the fields of his choice for this record. An email will be send to the users notifying them of the required actions. |
| Any One Input Delegation | <Combobox with Yes/No> | If this is set the input can be delegated to any users of the user’s choice. |
| Created By |  | Display the user id who created it |
| Created Datetime |  | Display the datetime of the record creation |
| View Access | <Form Select Values with users> | To specify the user ids to view, if empty only the creator can view the form. |
| Add Access | <Form Select Values with users> | To specify the user ids to add data to the form, if empty only the creator can add data to the form. |
| Edit Access | <Form Select Values with users> | To specify the user ids to edit the data in the form, if empty only the creator can edit the data in the form. |
| Delete Access | <Form Select Values with users> | To specify the user ids to delete the data in the form, if empty only the creator can delete the data in the form. |
| Add Email Alert | <Form Select Values with users> | To specify the recipients to receive email alerts when records are created. |
| Edit Email Alert | <Form Select Values with users> | To specify the recipients to receive email alerts when records are edited. |
| Delete Email Alert | <Form Select Values with users> | To specify the recipients to receive email alerts when records are deleted. |
| System Form | Combobox Values  <Yes/No> | This field is available for only system admins. |
| System Wide Access | <Multiselect Combobox Values>  **View Only**  **Add Only**  **Edit Only**  **Delete Only** | This field can be changed only by the system admin. If nothing is set here the access is **NOT** automatically available for all users, access is dependent on the specific user level access.  If a value is specified here then it will overrule the values stated on the specific user level access as follows :-  **View** – All users can view the existing records.  **Add** – All users can add new records.  **Edit** – All users can edit the existing records.  **Delete** – All users can delete the existing records. |
| Client Wide Access | <Multiselect Combobox>  **View Only**  **Add Only**  **Edit Only**  **Delete Only** | If nothing is set here the access is **NOT** automatically available for all users within the same client organization, the access is dependent on the specific user level access.  If a value is specified here then it will overrule the values stated on the specific user level access as follows :-  **View** – All users from the same client organization can view the existing records.  **Add** – All users from the same client organization can add new records.  **Edit** – All users from the same client organization can edit the existing records.  **Delete** – All users from the same client organization can delete the existing records. |
| Own Data View Only | <Combobox Yes/No> | Means the user can view his own data only |
| Own Data Edit Only | <Combobox Yes/No> | Means the user can edit his own data only |
| Own Data Delete Only | <Combobox Yes/No> | Means the user can delete his own data only |
| Background colour | <Colour pallette> | Sets the entire form’s background colour |
| Foreground colour | <Colour pallette> | Sets the entire form’s foreground colour |
| Font Style | <Combobox with font styles> | Sets the entire form’s font style |
| Font Size | <Combobox with sizes> | Sets the entire form’s font size, the fields in the grid should auto adjust to this size. |
| Forms Editor | <Form Select Values with users> | To specify the other user ids to edit the metadata of this form, if empty only the creator can edit it. |
| Audit Log | <Combobox Yes/No>  Default value is Yes | Will show the audit log report for the record.  If the value is Yes a view button will be shown and when view button is clicked, the button will change to a multilinedit box loaded with the audit log records.  If the value is No, this field will be hidden. |

**<Keyword search> <Create New> <Search>**

**<0 Hidden Columns> Layout Name :\_\_\_\_\_\_\_\_\_\_\_ <Save Layout> Select Layout : <Layouts> <Delete Layout>**

Reorder Column : **<Select Column>**  **Move Before :** \_\_\_\_ **Move After :** \_\_\_\_ **<Move It>**

**Selected Records Actions**

**<Edit > <Save> <Cancel> <Delete > <Duplicate>**

**<Copy To Form..> <Move To Form..>** {To allow copying/moving of data between forms. Specific fields can be selected to copy the data from the specific fields only.}

Reorder Records : **Move Before :** \_\_\_\_ **Move After :** \_\_\_\_ **<Move It>**

**<Load Details>** {When this button is clicked the child records related to the above parent record will be loaded.}

|  |  |  |
| --- | --- | --- |
| **FORM FIELDS (Child)** | | |
| **Column Names** | **Column Type** | **Remarks** |
| Select | Checkbox | To select the records |
| Internal Remarks | <Multiline editbox> | These remarks won’t be displayed on the forms. |
| Field Tip |  | This tip will be displayed below each field |
| Yellow Tip | <Multilineedit box> | Yellow tip is to display remarks during mouse hover on the field. |
| Field Type | <Text/Rich Text/Integer/Float/Date/Time/Datetime/24 Hours/Combobox/Multiselect/Form Select/Attachment/Messageboard> | Text field controls should auto expand when typing like this :- <https://css-tricks.com/auto-growing-inputs-textareas/>  Rich text field types should use RTE editors with inline image pasting option.  All float and integer fields should be automatically totalled up and the totals should be shown below each column. If the records are grouped, subtotals should be shown as well on these columns at each group break.  **Form Select** - for details on this check [Appendix B](#Formatforformselect)  **Attachment** field type should allow browse files option to attach files. If it is an image file, display the image in that column. If it is a video display the player.  **Multiselect** field type should use this field control <http://slimselectjs.com/?p=%2Fmethods%2F> but should allow checkboxes as shown here to select multiple values  https://www.oodlestechnologies.com/blogs/How-to-use-Multi-Select-drop-down-in-Angular-2/ |
| Field Usage | <Link Form/Link Record/Section > | **Link form** option can be used to create a hyperlink to another form. It will be a combobox and during form designing in the combobox values we can specify the list of forms from which the user can select the forms to link to.  **Link record** option can be used to create a hyperlink to another record in the current form and another form. It will be a combobox and during form designing in the combobox values we can specify the list of forms from which the user can select the records to link to.  **Section** is used to treat the field name as a section header instead of an input field. Section fields will be disabled for input and will be displayed in bold to differentiate from other fields. |
| Pre-requisite Fields | <Multiselect> | If prerequisite fields is stated here, this field will be visible only if data is entered in the stated pre-requisite fields. Users can select the pre-requisite fields using the multiselect option. |
| Pre-requisite Fields Value | <Multiline edit box> | If prerequisite field values are stated here, this field will be visible only if the value entered matches the values registered here.  Users can specify the values per field as follows :-  **Field1 = “Value1”**  **Field2 = “Value2”**  So this current field will be visible only if the user enters the same values as above in the respective fields. |
| Combobox/Multiselect Values {For field type combobox/multiselect} | <Multilineedit box to enter one list value per line> |  |
| Form Select Type {For field type Form Select} | <Combobox> | **Combobox Values**  Specific forms specific fields  Specific forms any fields  Any forms specific fields  Any forms any fields |
| Form Select Selectable Values | <Combobox> | **Combobox Values**  Single  Multiple |
| Form Select Values {For field type Form Select} | <Multilineedit box to enter one list value per line> | **Sample values :**   |  |  | | --- | --- | | **Form Select Type** | **Form Select Values (Sample)** | | Specific forms specific fields | Formname1.fieldname1  Formname2.fieldname2 | | Specific forms any fields | Formname1  Formname2 | | Any forms specific fields | fieldname1  fieldname2 | | Any forms any fields | Leave empty | |
| Old Values | <Multilineedit box where old values prior to field editing will be spooled> | {When data is created/edited for each field, the Old values column will store the old data values prior to editing in this format :-  Created By : <User id>  Created On : <datetime>  Created Value : <the value>  Edited By : <User id>  Edited On : <datetime>  Old Value : <the value>  } |
| Data Grouping | <Yes/No> |  |
| Mandatory | <Yes/No> |  |
| Count Similar | <Yes/No> | If count similar field is set to Yes then similar field values in the same form will be counted and displayed below the field name as “**<Total> Similar Values**”. This will be a hyperlink and when clicked a filter will be applied to filter the similar records for that field. |
| Validation | <Multiline edit box, to specify any free form validation> | Validation field can be used to specify free form validations like this formname.fieldname1 < formname.fieldname2, formname.fieldname1 <> formname.fieldname3, formname.fieldname1 > 5000 and if the validation fails display a message and disallow the record from being saved. |
| Validation Message | <Multiline edit box, to specify any validation message when validation fails> |  |
| Default Value |  |  |
| Formula |  | Formula field is to store calculated field values. Eg. ((Field 1 – Field 2) / Field 3 ) \* Field 4. If there is a formula stated in this formula column the formula will be evaluated and the results will be displayed in this field. All mathematical formula must be supported with parentheses. |
| Requires Any One Approval | <Form Select Values with users> | This is the field level approval settings. |
| Requires Every One Approval | <Form Select Values with users> | This is the field level approval settings. |
| Approval Delegation | <Combobox with Yes/No> | If this is set the approval can be delegated to any users of the approvers choice. |
| Requires Any One Input | <Form Select Values with users> | This is the field level input required settings. |
| Any One Input Delegation | <Combobox with Yes/No> | If this is set the input can be delegated to any users of the user’s choice. |
| Created By | <Display the user id who created it> |  |
| Created Datetime |  |  |
| Adding Email Alert | <Form Select Values with users> | Email alert column can be used to alert the emails with the data added. The email alert will be sent to the stated emails and the data added will be stated in the email too. |
| Editing Email Alert | <Form Select Values with users> | Email alert column can be used to alert the emails with the data created/changed. The email alert will be sent to the stated emails and the data changed will be stated in the email too. |
| Deleting Email Alert | <Form Select Values with users> | Email alert column can be used to alert the emails with the data deleted. The email alert will be sent to the stated emails and the data deleted will be stated in the email too. |
| View Access | <Form Select Values with users> | To specify the user ids to view, if empty only the creator can view it. |
| Edit Access | <Form Select Values with users> | To specify the user ids to edit, if empty only the creator can edit it. |
| System Field | Combobox values :-  No (Default value)  Yes - Editable  Yes - Not editable | Only system admins can change the value of this field.  No - This is not a system field.  Yes - Editable – It is a system field and users can edit the data stored in this field.  Yes - Not editable – It is a system field and users cannot edit the data stored in this field. |
| Hide External | <Combobox with Yes/No Values> | Hide external is where if the form is shared via links to external people using this field we can hide certain fields for them. |
| Background colour | <Colour pallette> | Sets the field’s background colour |
| Foreground colour | <Colour pallette> | Sets the field’s foreground colour |
| Font Style | <Combobox with font styles> | Sets the field’s font style |
| Font Size | <Combobox with sizes> | The fields in the grid should auto adjust to this size. |
| Font Bold | <Combobox Yes/No> | Sets the field’s font bold |
| Font Italic | <Combobox Yes/No> | Sets the field’s font italic |
| Audit Log | <View> | When the audit log column at the record level is clicked, load the entire audit logs for that record and display in a multiline edit box |

|  |  |  |  |
| --- | --- | --- | --- |
| **System Fields Auto Created By Default For All Forms** | | | |
| **Field Name** | **Field Type** | System Field | **Remarks** |
| Parent Record | Integer | System Field Un-Editable | This can be used to store the record id of the parent record. This can be populated by the users to define hierarchical field data. This field will be shown as a button when clicked, a popup will open to show all the records in a searchable grid using which a record can be chosen to become the parent of the current record. Once a parent has been defined for a record, that record will disappear to become the child of the parent record and the parent record will get a + sign immediately which can be expanded to view the child records. The hierarchy levels should be unlimited. For eg. See this https://demo.koolphp.net/Examples/KoolGrid/Hierarchy/Three\_Levels\_Hierarchy/index.php } |
| **External Validation** | Text | System Field Editable | When the records are saved an user exit should be provided where an external program can be called with the current record values as input and then get it validated in the external program, the record will proceed to save only if this external program validation passes. This can be used as a customer exit to do further complex validations before saving the record. The external program can be given in the form of an URL. |

{The relationship between form name and form fields is one to many as parent and child}

This same screen format should also be used when running the forms during run-time}

}

{For the upload option, both the parent and child fields will be updated hence both the parent and child fields must be present in the import file for the child form. If only the parents fields are present, only the parent fields will updated. The child fields cannot be present without the parent fields.}

}

All the grids in the system should have the following options as stated in [**Appendix C**](#Gridoptions)

{When anyone approval or everyone approval fields are populated at the forms level, this means that this is a record level approval and the following system fields will be auto created for the form, for these fields the column system field **Un-editable** will be set, which means the data of these fields are display only and cannot be edited :-

|  |  |  |
| --- | --- | --- |
| **Record Level Approval** | | |
| **Field Name** | **Field Type** | **Remarks** |
| Record Approved By | Text | System field un-editable. Auto updated by the system. |
| Record Approved On | Text | System field un-editable. Auto updated by the system. |
| Record Approval Status | Combobox with values Approved, Request Modification, Rejected | System field editable. |
| Record Approval Status Comment | Rich text | System field editable. |
| Record Approval Status Attachment | Attachment | System field editable. |
| Record Approval Delegate To | Form Select | System field editable.  Link it to Users form filtered by the current user’s client id. This field will be available only if the Approval Delegation field is set to yes. Then he will become one of the approvers. |
|  |  |  |
|  |  |  |

{When anyone approval or everyone approval fields are populated at the form fields level, this means that this is a field level approval and the following system fields will be auto created for the form, for these fields the column system field **Un-editable** will be set which means the data of these fields are display only and cannot be edited :-

|  |  |  |
| --- | --- | --- |
| **Field Level Approval** | | |
| **Field Name** | **Field Type** | **Remarks** |
| <the field name> Approved By | Text | System field uneditable. Auto updated by the system. |
| <the field name> Approved On | Text | System field uneditable. Auto updated by the system. |
| <the field name> Approval Status | Combobox with values Approved, Request Modification, Rejected | System field editable. |
| <the field name> Approval Status Comment | Rich text | System field editable. |
| <the field name> Approval Status Attachment | Attachment | System field editable. |
| <the field name> Delegate To | Form Select | System field editable.  Link it to Users form filtered by the current user’s client id. This field will be available only if the Approval Delegation field is set to yes for that particular field. Then he will become one of the approvers. |
|  |  |  |
|  |  |  |

For both record and field level approvals, the Approved by and Approved on will be auto populated by the system. Using delegate to option an approver can delegate his approval to another person of his choice within his organization. For this field use the form select field control to select the user ids.

The following fields will be auto created when the Anyone input is activated at the form level or field level :-

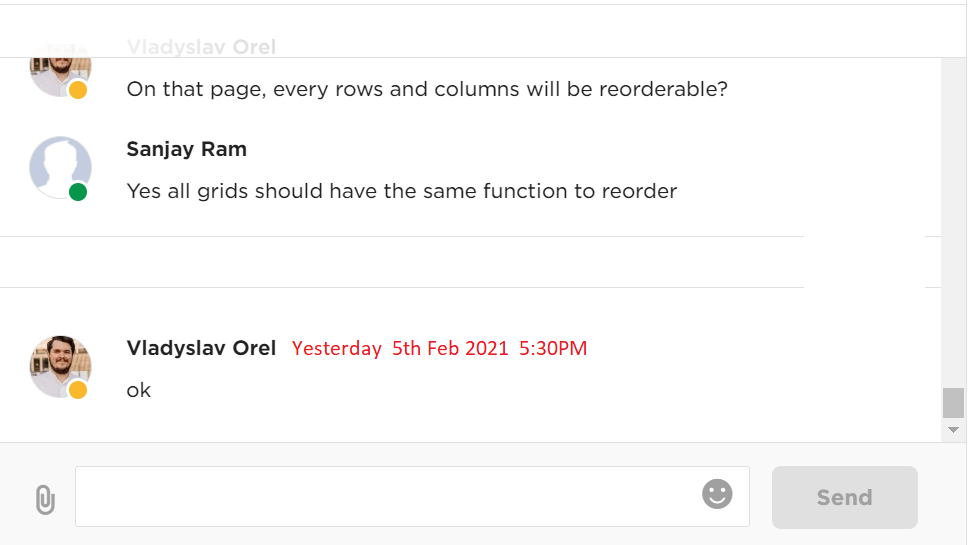
|  |  |  |
| --- | --- | --- |
| **Record Level Input** | | |
| **Field Name** | **Field Type** | **Remarks** |
| Record Input Delegate To | Form Select | System field editable.  Link it to Users form filtered by the current user’s client id. This field will be available only if the Input Delegation field is set to yes. Then he will become one of the inputters. |
|  |  |  |

|  |  |  |
| --- | --- | --- |
| **Field Level Input** | | |
| **Field Name** | **Field Type** | **Remarks** |
| Field Input Delegate To | Form Select | System field editable.  Link it to Users form filtered by the current user’s client id. This field will be available only if the Input Delegation field is set to yes. Then he will become one of the inputters. |
|  |  |  |

}

}

{Messageboard fields will be displayed at the bottom of the respective grid in the following format when the mouse focus is set on the messageboard field.

****

This will be like our Upwork message board. An RTE editor should be used to enter messages, paste images and with options to add attachments. Smiley icons are optional. I changed the way how the date time will have to be displayed as shown in the red font. That is something that you need to change which is different from Upwork style.

@ sign can be used to mention a particular user and they will get an email notification whenever they are mentioned here.

}

{The save layout option should save the current layouts with hidden columns, sorting, filter, grouping, column freeze}

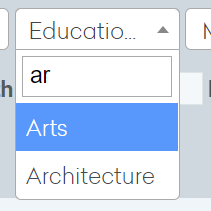
{Users can add new fields to the forms created by other users but they cannot edit/delete the fields created by the other users.}

{System admin will have super access to run and edit/delete all forms and fields and form data created by other client users.}

{Unlimited text field type should use RTE editors which allows inline image pasting}

{It should a RTE edit box which allows inline image pastings and also attachments.}

{All comboboxes must use searchable format like this below



}

**Clone User Forms**

|  |
| --- |
| **<Source Users> <Copy/Move> <With Data/Without Data> <Destination Users>**  **<Execute>** |

{Using this option the forms and form data created by other users can be copied/moved to required users. More than one source user can be selected to copy/move to multiple users}

**DATABASE DESIGN**

|  |  |  |
| --- | --- | --- |
| **FORMS**  Primary Key : Form Id | | |
| **Field Name** | **Field Type** | **{Remarks}** |
| Form Id | UID |  |
| Form Name | Text (100) |  |
| Internal Remarks | Unlimited Text |  |
| Form Tip | Unlimited Text |  |
| Parent Form | Text (100) |  |
| Group | Text (100) |  |
| Parent Group | Text (100) |  |
| Requires Anyone Approval | Unlimited Text |  |
| Requires Everyone Approval | Unlimited Text |  |
| Requires Anyone Input | Unlimited Text |  |
| Created By | Text (100) |  |
| Created Datetime | Datetime |  |
| View Access | Unlimited Text |  |
| Edit Access | Unlimited Text |  |
| System Public View | Text (1) |  |
| System Public Edit | Text (1) |  |
| Client Public View | Text (1) |  |
| Client Public Edit | Text (1) |  |
| Forms Editor | Unlimited Text |  |

|  |  |  |
| --- | --- | --- |
| **FORM FIELDS**  Primary Key : Form Id + Field Id | | |
| **Field Name** | **Field Type** | **{Remarks}** |
| Form Id | Foreign key from Forms |  |
| Field Id | UID |  |
| Field Name | Text (100) |  |
| **Internal Remarks** | Unlimited Text |  |
| Field Tip | Unlimited Text |  |
| Yellow Tip | Unlimited Text |  |
| Field Type | Text (20) |  |
| Combobox Values | Unlimited Text |  |
| Mandatory | Text (1) |  |
| Old Values | Unlimited Text |  |
| Default Value | Unlimited Text |  |
| Requires Input | Unlimited Text |  |
| Created By | Text (100) |  |
| Created Datetime | Datetime |  |
| View Access | Unlimited Text |  |
| Edit Access | Unlimited Text |  |

|  |  |  |
| --- | --- | --- |
| **FORM FIELD VALUES**  Primary Key : Form Id + Field Id + Value Id | | |
| **Field Name** | **Field Type** | **{Remarks}** |
| Form Id | Foreign key from Forms |  |
| Record Id  {This is used to group together the fields belonging to the same record. Values will be repeated for the same record.} | Unlimited Integer |  |
| Field Id | Foreign key from Form Fields |  |
| Value Id | UID |  |
| Field Values | Unlimited Text |  |
| Created By | Text (100) |  |
| Created Datetime | Datetime |  |

The field value changes will be recorded in an audit log table in this format below.

|  |  |  |
| --- | --- | --- |
| **AUDIT LOG**  Primary Key : Form Id + Record Id + Log Id | | |
| **Field Name** | **Field Type** | **{Remarks}** |
| Form Id | Foreign key from Forms |  |
| Record Id | Unlimited Integer | For metadata forms and form fields this will be empty. |
| Log Id | UID |  |
| Datetime | Datetime |  |
| Operation | Text (10)  {Create/Edit/Delete} |  |
| Parent Record | Unlimited Text | Will show the parent form record details, in this format. If this is a parent record then this will be empty :-  **Field 1 :**  **Field 2 :** |
| Current Record | Unlimited Text | Will show the current record details which was changed (after the change), in this format :-  **Field 1 :**  **Field 2 :** |
| Old Values | Unlimited Text | Will show old values of all the changed fields in this format :-  **Field 1 :**  **Field 2 :** |
| New Values | Unlimited Text | Will show new values of all the changed fields in this format :-  **Field 1 :**  **Field 2 :** |
| Created By | Text (100) |  |
| Edited By | Text (100) |  |
| Deleted By | Text (100) |  |

This table will be created to store the column reordering by each users.

|  |
| --- |
| **Form Name : Column Order** |
| Form name |
| Field Name |
| User Id |
| Column Order |

This table will be created to store the row reordering by each users.

|  |
| --- |
| **Form Name : Row Order** |
| Form name |
| Record Id |
| User Id |
| Row Order |

Some initial form values will be directly maintained in the above tables using PHPmyadmin for the system admin to login to the system and create the other forms required. For example the system users will be directly maintained in a form name **“Users”** with the following field values :-

|  |
| --- |
| **Form Name : Users** |
| Client Id |
| User Id |
| First Name |
| Last Name |
| Designation |
| Alternate Email |
| Phone |
| Password |
| User Type |
| Subscription Amount |
| Subscription Started |
| Subscription Renewal |
| Free Account |

The code can refer to the above table coded form name **“Users”** for the initial user records to allow the login. The following form name will also be directly maintained via phypmyadmin.

|  |
| --- |
| **Form Name : Clients** |
| Client Id |
| Company Name |
| Website |
| Contact Name |
| Designation |
| Email |
| Phone |
| Address |

**The following forms will be created by the system admin for system use and programming use**

{This form will be used to store the emails to be sent. All emails will be queued here and sent 100 emails per hour only by a cron. This is to ensure my hosting account does not block me.}

|  |
| --- |
| **Form Name : Email Queue** |
| From Email |
| To Email |
| Reply to Email |
| CC Email |
| BCC Email |
| Subject |
| Email Body |
| Attachments |
| Email Sent {Datetime field} |

|  |
| --- |
| **Form Name : User Rights** |
| User Id |
| Design Form {Yes/No} |

**Appendix B - Format for the Form Select**

Form and fields can be specified in **Form Select** field values in this format **formname.fieldname1**. Display a custom control using a multiline edit box and a select button like this and the selected values will be shown in the edit box one value per line where the users can scroll and see the single/multiple values. :-

Multilineeditbox

**<Create> <Select>**

When create is chosen link to the form where the fields are coming from so that new records can be created there. If select is chosen display a search window in this format where all the fields from the specified formname will be displayed as follows.

:-

**Select Single/Multiple Records From <Form Select Type>**

**Select form <Combobox with specific/all forms>**

**{In the Form Select Values, if only specific forms are stated, list the specific forms above. If only field names are stated or it’s left empty, list all the forms the user has access to.}**

{The following grid will have the standard options as stated in [**Appendix C**](#Gridoptions)}

{Column and row reordering is not needed for this 2 grids since it is not possible to do so when multiple forms are involved.}

|  |  |  |  |
| --- | --- | --- | --- |
| **Selected Records And Fields** | | | |
| **Form name** | **Field 1** | **Field 2** | **Field 3** |
|  |  |  |  |

{The following grid will have the standard options as stated in [**Appendix C**](#Gridoptions)}

|  |  |  |  |
| --- | --- | --- | --- |
| **Select The Records** | | | |
| **Select** | **Field 1** | **Field 2** | **Field 3** |
| <Select> |  |  |  |
| <Select> |  |  |  |
| <Select> |  |  |  |

**<Confirm> <Cancel>**

Manual entries can also be directly entered into the multiline edit box custom control without selecting the values from the above screens but it will be validated against the Form Select values based on the following conditions :-

The following permutations are allowed :-

|  |  |  |  |
| --- | --- | --- | --- |
| **Form Select Type** | **Form Select Selectable Values** | **Form Select Values (Sample)** | **Remarks** |
| Specific forms specific fields | Single/Multiple | Formname1.fieldname1  Formname2.fieldname2 | The create option will be available only if one formname and fieldname is stated. Manual entries will be validated against these fieldnames. |
| Specific forms any fields | Single/Multiple | Formname1  Formname2 | The create option will be available only if one formname is stated. Manual entries will **NOT** be validated. |
| Any forms specific fields | Single/Multiple | fieldname1  fieldname2 | The create option won’t be available. Manual entries will **NOT** be validated. |
| Any forms any fields | Single/Multiple | Leave empty | The create option won’t be available. Manual entries will **NOT** be validated. |
|  |  |  |  |

**Appendix C - All the grids in the system should have the following options**

For each field display the following 2 icon below the field.

{ icon is used for filtering the column for a value. For eg. See this <https://demo.koolphp.net/Examples/KoolGrid/Filtering/Basic_Filtering/index.php> }

{ icon is used to sort ascending and descending. }

{For each field, add a vertical 3 dots icon like this (https://uxwing.com/more-options-icon/) should be shown and when clicked show these options in a drop down list

1. **Hide column** {To hide the column so that the column can be hidden by the user for his view. The hidden columns can be unhidden by clicking this **<0 Hidden Columns>**. This will be a combobox which will show all the hidden columns. Selecting a combobox value will unhide that column. The 0 will be replaced with the total columns which are hidden.}
2. **Freeze column**  {For eg. See this https://phpdatagrid.com/examples/phpGridx/examples/column\_freeze.php?iframe=true&width=750&height=500}
3. **Group column** {For eg. See this https://phpgrid.com/example/column-grouping-with-summary/}
4. **Audit log** {Will show the field’s old data values from the field Old values. This old values field will be added next to the current field with title “<Field name> Old Values”. To hide this field, choose the audit log option again. This will toggle between showing the old values field. If the grid do not have the Old Values column, do not show this option.}

}