

# Secure Form Builder

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## Abstract

In this era of IT, there is a need of quick response from the technology. Technology which offers quick response is preferred. With an interface for creating forms with the inbuilt validations. Creating forms is not a big deal but the problem arises when the website goes from static to dynamic that is, when we need to put validations within our website and have to make it secure. In websites, Customer feed backs, product appraisals and management appraisals are highly effective market research tools. You can even use the feedback you receive in your website, to shift your advertising efforts, make changes to your packages, switch delivery methods, improve product quality and just about anything else, your employees and customers demands. One of the best ways to keep growing in this ever-changing economy is to listen carefully to what people are saying and react quickly to it. This system of Perfect secure form builder features a unique set of functionalities that can be used to measure satisfaction levels.

## Problems

This application is going to solve several real-time problems that the user faces on creating forms, such as-

1. **Validations:** Users have to write full code for validations which is very hectic. Also we don't have

any compilers for Java script so error detection is hectic in conventional coding system.

2. **Backend Code for Future Use:** Since users have to write the validations code themselves, so there is no scope for getting the automated code at the back end.
3. **More time taking:** Since error finding in java script or j query is not easy, it takes days to complete the java script code.
4. **No GUI:** The conventional tools for creating forms gives only the drag and drop feature in their IDE (Dreamweaver, FrontPage). They does not support any inbuilt themes or GUI interface.
5. **Customization:** Users cannot customize their form elements or the screen of their IDE.

## Introduction

The primary goal of this system "Secure Form Builder" is to develop a tool for creating forms in websites. Our primary purpose is to reduce the time involved in hectic coding of putting validations in the field of forms. This tool will allow users to create a form by drag and drop application along with it will automatically provide validations.

Proposed system is a tool which is totally web based. This tool is a Form Builder which will help the user with the basic form creating application along with some of the special features. This tool provides the user an IDE

which will include the drag and drop application for all the form elements, Properties Bar for the fields of the forms, Validations checks, automatic code at the back end for the form elements as well as the validations. PHP as well Java Script code. The developer has divided this project into various modules which further consists of their functionalities. The divided modules are as follows:

1. **Customizing Libraries Module** – This project is using the JQuery Plug In and customizing them. This Module includes :

- Click and Drop Application\_- It includes the Java script code for creating the Drag and Drop application for form elements.
- Creating Themes – It includes the creation of themes which will be provided to the user for much interactive and attractive GUI.
- Creating Scripts – This includes the automatic code generation (onBlur). As the form element is dragged and dropped at the work space, its automatic code is generated at the back end.
- Properties – (onFocus) as the user focuses or clicks on any element of the form, immediately its property bar will be displayed where it can be customized. The values which the user will change/modify here in the Properties Panel will automatically gets updated in the back end code also.

2. **Theme Design Module** – It will comprise of the User Area and the Login space.

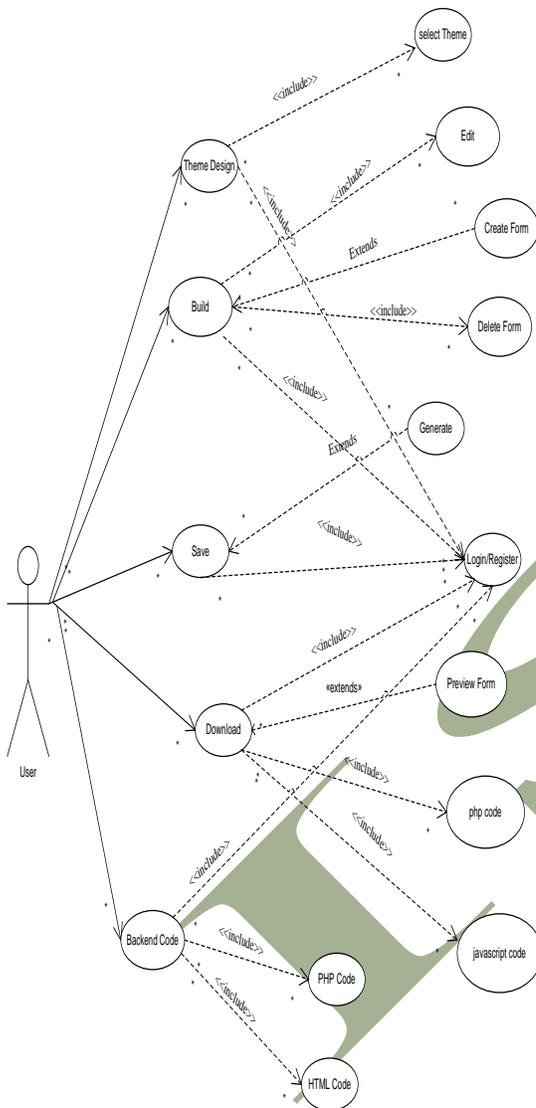
3. **Work Space Design Module** – Here, the work space comprise of all the elements on which user can work and which will be a part of the major functionality. It includes:

- Work Space - Work Space is the work area which will be displayed to the user and where the user will work.
- Themes – Inbuilt themes provided by the tool to the user.
- Properties Panel – Associated to every field of the Form, the exists a Properties bar to customize it accordingly.
- Validation Panel – For customizing any field in the form, validation panel is used to set its corresponding values. It generates code of the validations at the back end and the user will select whether to take the java script code or the PHP code or both.
- Build Up Panel – Through this, user can build the form, save it and can download it.

4. **Theme Development** – It will be totally developed in PHP. It includes :

- User Account – It will allow the user to manage his profile, history of his previous work, etc.
- PHP code – This is the special functionality of the system, to provide the user will PHP code of the entire working at the screen at the back end.

### System Flow



<b>Table: 1</b>	<b>TABLE NAME:</b> System Flow
Description:	The functionalities of the user flow are described in this use case
Actor:	End User
Assumption:	Public User do not need Login.
Main Flow:	<ul style="list-style-type: none"> <li>❖ Can be able to Create Form(free)</li> <li>❖ Can be able to fill Required fields</li> <li>❖ Can be able to select and apply corresponding validation with the control.</li> <li>❖ Can be able to customize the themes</li> <li>❖ Preview and Analyse the form</li> <li>❖ If finds anything wrong, should be able to EDIT/DELETE the form.</li> <li>❖ Can be able to download the zip files.</li> <li>❖ Should be able to understand the difference between javascript code and PHP code.</li> </ul>
Alternative Flow:	N/A
Any Exception(s):	N/A

**Functionalities of the Proposed System**

Functionality	Description
(F1) Login	User who wishes to save the form needs to do mandatory login.
(F2) Form Elements	It consists of all the elements and the controls used in form designing.
(F3) User Profile	This is the profile of registered users which will manage the User's Profile and save the forms which user have created and saved.
(F4) Web Based Application	This tools is an online application
(F5) Click and Drop	The tool comprise of easy click and drop feature to bring all the form elements and controls onto the screen.
(F6) GUI	Provide interactive GUI. Users will be able to create and customize Themes. The Themes will be in HTML5
(F7) Open Source	Forms created can be downloaded and further used. Users can also use the code of javascript and PHP anywhere else.
(F8) Inbuilt Validations	It will provide inbuilt javascript validations of

all type. User can select the desired type of validations for different fields like Numeric, AlphaNumeric, etc

**(F9) Get Code** User will be able to get the java script and PHP code of the validations used. User can further use the created form anywhere else with the help of this code only.

**Pseudocodes**

1. Login

- Step1. Start
- Step2. Get input details from the user
- Step3. Encode data in URL
- Step4. Post the URL to the server
- Step5. Server receives the URL
- Step6. If the URL received is legitimate, THEN
  - Step6.1. Server inserts the data in the data storage.
  - Step6.2. ELSE response error message
- Step7. END IF
- Step8. Client receive response from the server
- Step9. If server response is successful, THEN
  - Step9.1. Display Registered Successfully
  - Step9.2. ELSE display user already exists.
- Step 10. END

## 2. Create Form

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Step1. Create Form

Step2. Click on the HTML controls

Step3. Fill input in the control property panel

Step4. IF input is correct, THEN

Step4.1. Go to validations panel

Step4.2. ELSE ignore the field and select new field.

Step5. ENDIF

Step6. Select the type of validation for the control

Step7. Click on the submit button

Step8. Data of the control is inserted in the workspace

Now as soon user will click on Save Form, the form will be created and will be saved in the user account in the database.

## 3. Click and Drop

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Step1. Start

Step2. Click on the control you want to use

Step3. Property panel of the control is displayed

Step4. Add the mandatory Name, Label, Description, value, ID and class of the control

Step5. Add the required validations of the control

Step6. IF the data selected and entered is correct, THEN

Step6.1. click on Add to form

Step6.2. ELSE, fill the correct data

Step7. Controls are selected and placed in the form

Step8. END

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First, user will click on Create Form button, it will display the workspace area and the control panel of the form. Then user will add the controls to the form using the Click and Drop functionality of the system.

## 4. Creating Themes

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Step1. Start

Step 2. Select theme option from the workspace

Step3. . Select a theme

Step4. Set the Theme

Step5. Theme Applied

Step9. End

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According to this functionality, user will be able to customize his forms with the help of inbuilt themes provided within the tool.

## 5. Property Panel

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Step1. Select the Control

Step2. Fill the Required Properties of the control

Step3. Fill the Optional Properties of the control(optional)

Step4. Click on Add To Form

Step5. IF, Selected property is correct

Step6. Continue

Step7. ELSE Click on Edit

Step8. Delete the Control

.Step9. Click and drop the Control

Step10. Follow Step 1 to 4

Step11. END

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As soon user drag the HTML control to the workspace, this property panel is displayed on the workspace area. The property panel consists of various required attributes fields which includes some mandatory fields be included with some optional fields, which the user can even skip.

## 6. Validation Panel

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Step1. Start

Step2. Select the control

Step3 Validation Panel is displayed

Step4. Choose the appropriate type of validation

Step5. Click to Add Form

Step6. END

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This functionality reduces the time of the user by providing inbuilt validations. These inbuilt validations in this replaces the hectic javascript code used for validating the fields. It in turn reduces the time, manages and increases the efficiency of the system.

### Challenges

The primary challenge of building this system is to replace the conventional coding system which takes hours and days to complete. To fulfill this promise, several technologies have to orchestrate. Further there will be a need to make users aware of such a system and a possibility that users will appreciate this system. There exists similar kind if systems in market but the challenge will to make it different from the existing systems. The basic challenge is for those few functionalities which brings uniqueness and effectiveness in my system. The Use of all the learning outcomes which we have studied so far along with the use of some new technology or implement the new learning is also the one of the challenging task. Challenge also includes New Concepts, Theories and Technologies to Be Learnt

### Conclusion

The project is strictly web based. In the form creation, the developer found that the system lacks in the image criteria. There is no provision for image upload in the

tool. More security features like encryption would enhance the functionality of the system. In future, the developer has a view of uploading images in the forms.

The system has been developed keeping in mind the needs and requirements of the user as discussed prior to the development of the system.

### Acknowledgement

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