FUNCTIONAL SPECIFICATION DOCUMENT

EMPLOYEE MANAGEMENT SYSTEM - WEB APPLICATION

Version 0.2

Version History

Version#	Description of Change	Author	Reviewed By	Version Date
0.1	EMS - Web Application FSD	Anushka	Nikhil Gupta	25 August ,2020
0.2	Correction in data elements of **forgot password**? Module	Anushka		7 September, 2020

Approval History

Version#	Approver	Approver Role/From	Approved Date

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1. Introduction

1.1 Purpose of Document

The functional specification document provides detailed information on how the system solution will function and the requested behavior. This document is created based on the high-level requirements provided by the kellton team and provides traceability on the functional specifications back to the business requirements.

This document describes all elements that need to be considered while documenting functional specifications given by the team and other stakeholders available in the Employee Management System - web application (although it contains only scope requirements). This version of FSD is subject to change depending on the feedback provided during the course of document evaluations by various stakeholders. A final FSD will be recorded once there is an official sign-off by the stakeholders on agreeing to freeze the requirements.

1.2 Scope of Document

The scope of this document is confined to capture the in-scope functional requirements of the Employee Management System provided by the kellton team & stakeholders.

1.3 Purpose of Project

The purpose of the project is to develop an **Employee Management System - Web Application** where the employer and the employees could register and login, The employer can manage employees and add new employees to the system. The employees can see their details inside the employee portal and can add new details or edit them. This will consist of below modules :

- Employer > Registration
- Employer > Login
- Employer > Portal
- Employer > Portal > Add Employees
- Employer > Portal > Manage Employees
- Employee > Registration
- Employee > Login
- Employee > Portal
- Employee > Portal > Add Details

1.4 Definitions, Acronyms, and Abbreviations

Term/Abbreviation	Description
M	Mandatory
O	Optional

2. System Perspective

2.1 Constraints
- The requirements will be developed on the basis of discussions and final approval.
- The requirements mentioned in the document (final approved version) would be considered as in-scope.
- Any enhancement/add-on which was not initially part of the proposed requirements would be considered under change request and would be re-estimated.

2.2 Assumptions & Dependencies
- The maximum user traffic (85% - 90%) would be coming through mobile devices so need to be responsive application.
- We are considering EMS as a third party tool.
- We are considering it as a **SaaS** Product.
- We are assuming that the URL for Employer Registration is being provided by the third party.
- We are considering the registration of the employees is being done by the employer.
- We are considering a horizontal menu here because of less features.
- The hosting will be done on the AWS cloud.
- We are not assuming to integrate any type of social media login on login pages (it's an addon requirement).
- We are assuming that the stakeholders shall provide feedback whenever required within 1-2 business days depending on the scope of the feedback items.
- The developed solution shall support the English language only.
- There will be a maximum of 2 iterations of designs.
- The proper coding standards will be followed for project development.
- Any functional requirement not mentioned in the approved FSD will be considered as a change request and can lead to changes in the cost and the timelines.
- The application security audit done from any third party would be borne by the stakeholder.

3. System Configurations

3.1 Technology Stack

Component	Technology
Server	Apache
Operating System	LINUX
Database	MySQL
Frontend/Backend Development	PHP - MAGENTO

3.2 Operating System & Browser Compatibility

OS	OS Version(s)	Browser(s)	Version

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Windows	7, 8, and 10	Chrome	76.0
		Firefox	68.0
		Internet Explorer	11
		Opera	62
Mac OSx	10.14.6	Safari	[latest version]
		Chrome	76.0
		Firefox	[latest version]
Android	9.0	Chrome	76.0
		Firefox	68.0
iOS	12.4	Safari	[latest version]
		Chrome	76.0
		Firefox	18.1

3.3 Device Responsive Compatibility

Devices	Resolution Range
Desktop/Laptop (Windows, MacOSx)	1366x768
iPad (Windows, MacOSx)	768x1024
Mobile (Android & iOS)	320x1024

4. Requirement Summary

This section is indicating all the scope requirements in terms of use cases and complete techno-functional description.

4.1 Scope of Work

The current scope of work includes the below modules/features actor wise.

Actors	Feature/Module

Kellton_EMS_ Web Application_V0.1   7

Employer	• Registration • Login > Email & password • Reset password • Employer Portal • Home • Manage Employees • Add Employees • Logout • Employee Registration
Employees	• Login > Email & password • Reset Password • Employee Portal • Home • Add Details • Logout

4.2 Deferred Requirements

During the requirement discovery phase, the below business cases came out and can be considered in **future scope**.

- The application used as SaaS.
- In Saas model, the architecture hierarchy would increase and multiple agencies can use it.

4.3 Context Diagram
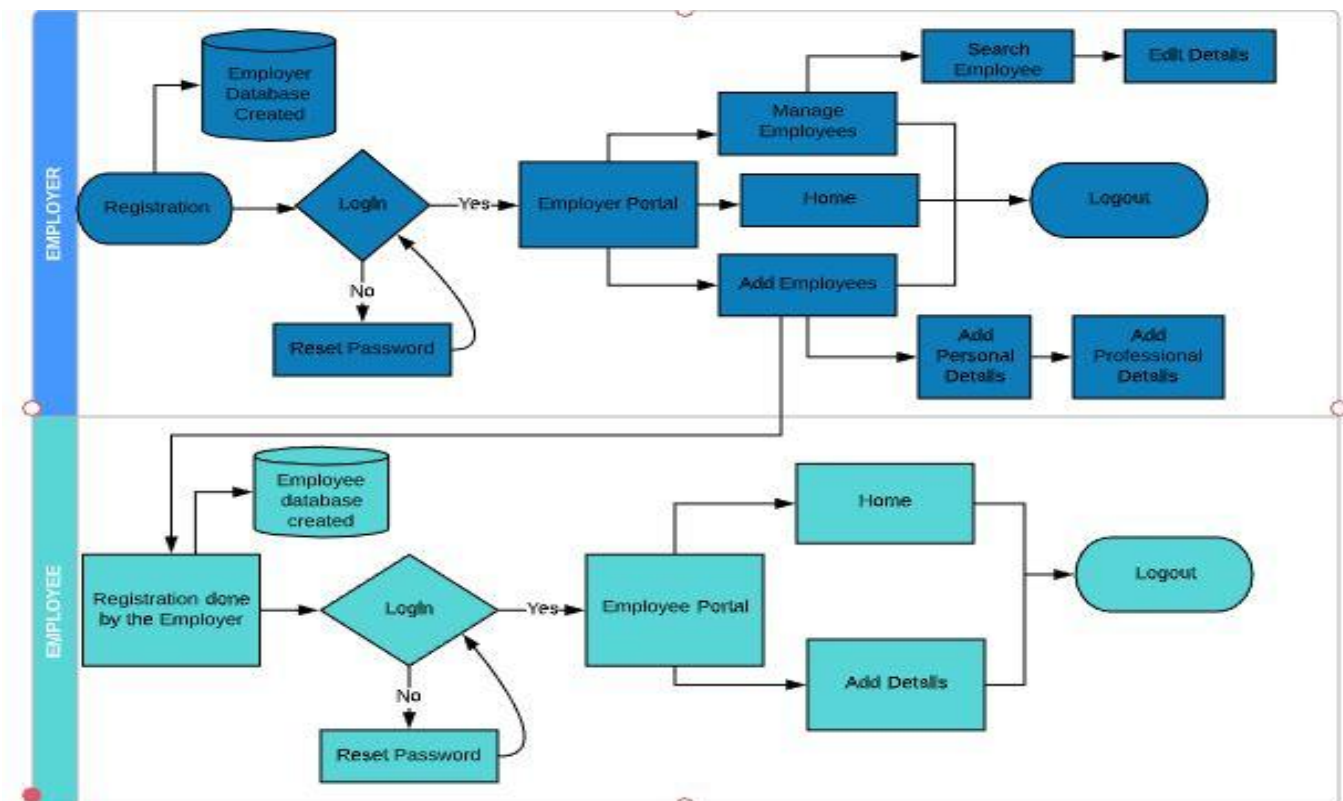
4.4 Requirement Definitions

The below are the linked use cases and can be used as a pointer reference.

Requirement ID	Requirement Definition	Actors
FR_E_01	Registration	Employer
FR_E_02	Login	
FR_E_03	Reset Password	
FR_E_04	Employer Portal	
FR_E_05	Home	
FR_E_06	Manage Employees	
FR_E_07	Add Employees	
FR_E_08	Logout	
FR_E_09	Employee Registration	
FR_EO_01	Login	Employee
FR_EO_02	Forgot Password?	
FR_EO_03	Employee Portal	
FR_EO_04	Home	
FR_EO_05	Add Details	
FR_EO_06	Logout	

5. Use Cases: Employer

5.1 Registration

ID: UC_E_01	
Description	As an Employer, I should be able to register to the EMS (Employee Management System) so that I could login to the portal and access the provided features .
Actor(s)	Employer

Pre-Conditions	• The actor(s) must have a proper internet connection. • The actor(s) must have a Registration URL provided to them by the third party. • The actor(s) must be on the Employer Registration Page after entering the correct URL.
Post-Conditions	• On clicking the link, the actor should be able to land to the Employer Registration Page & after filling up the details they could finally register themselves.
Business Rules	• The third - party would create a database of the employer after registration. • The system would make a check on whether the employer is registered or not. • The system would validate each data field. • The system would trigger an email on successful registration with login link & Employee Registration Link. • The actor(s) would be directed to the login after successful registration.
Alternate Flow	N.A
Email	*Subject: Successfully Registered* *From: no-reply@yourdomain.com* *To: <SUBMITTED_EMAIL_ADDRESS>* *Hi <EMPLOYER NAME>,* *You are successfully registered.* *Click Here for login <<Login Link>>.* *Register your employees with this link <<Employee Registration Link>>* *Thanks,* *<Help Desk>*
Wireframe	https://app.lucidchart.com/invitations/accept/ba801776-f140-461b-a495-5c010732136a

Normal Flow

The Employer would be able to register to the employee management portal through the registration form and on successful Registration they will receive an email with a login link to their provided email address and directed to the employer login page, from where they could login to the employer portal. The Registration form will have the following data elements .

Data Elements - Registration form

Field/Element Name	Type	Rules/Validations
Company Name (M)	Input Area	• The Company Name should be manually filled. • The system should match the entered Company Name with the stored database value. • If it matches with stored value the field will be highlighted in red & a message will pop as **"Company Name already taken"**. • It shouldn't contain any numeric value. • It should have a maximum limit of 50 characters.
Company Website (M)	Input Area	• The Company Website should be filled manually. • It should be **https://<domain_name>.com** in this

		format. • The website should be a valid website.
Upload Terms & Condition Agreement (M)	Upload	• The system should allow the actor to upload the agreement document. • The size of the document would not exceed 500 KB. • The file should be a PDF file.
Upload Company Documents (M)	Upload	• The system should allow the actor to upload the Company Document such as GSTIN Number, Company Registration Id. • The size of the document would not exceed 500 KB. • The files should be a PDF file.
Phone Number (M)	Input Area	• The phone number should be 10 digits. • If the phone number was registered before. The system will highlight the field with red color with text **"This phone number is registered"** • If the phone number field have entered digits less than 10 it will highlight the field border with red color with text **"Please enter your 10 digit phone number"**
Enter Email (M)	Input Area	• The system will allow the actor to enter the email. • The check must be made on email from the backend whether it is being registered or not. • If the email was registered before. The system will highlight the field with red color with text **"This Email is registered"**
Password (M)	Input Area	• The system should allow the actor(s) to set a password. • The password can be alphanumeric. • The password must not be more than 8 characters. • If the password entered is more than 8 characters, the Data field will be highlighted with red color with the message **" Limit exceeded ."** **Note:** *The password should be in encrypted form in the database.*
Confirm Password (M)	Input Area	• The actor needs to re-enter the password. • The system will match the confirm password with the password set by the user. • If they don't match, the system will highlight the data field with the message **"Password doesn't match"**.
City (M)	Input Area	• The city name should be filled manually. • It shouldn't contain any numeric value. • It should have a maximum limit of 50 characters.
State (M)	Input Area	• The city name should be filled manually.

		- It shouldn't contain any numeric value. - It should have a maximum limit of 50 characters.
Register (M)	Button	- When the Register button is clicked, the system should check if the mandatory fields are entered or not. - The system should highlight the field border with red color if any mandatory field is missed with an error alert. - On successful authentication (if entered credentials are correct), the system would show pop - up of **"You are Successfully Registered"** - The system will send an email for confirmation along with Login Link.

5.2 Login

ID: UC_E_02	
Description	As an Employer, I should have login access so that I can log in to the portal.
Actor(s)	Employer
Pre-Conditions	- The actor(s) must have a proper internet connection. - The actor(s) must be registered and receive a login URL. - The system should have saved all data entered by the actor. - The actor(s) would have clicked the login URL as provided to them via email.
Post-Conditions	On successful authentication, the actor(s) would be able to log into the employer portal.
Business Rules	- By clicking on the login URL actor should be able to be directed to the login page. - The system should allow the actor to login through a registered email id. - The system should make a check on the entered fields. - If the entered fields don't match with the backend values. The field would be highlighted in red color showing text **"Invalid Input please enter valid inputs".**
Alternate Flow	N.A
Wireframe	https://app.lucidchart.com/invitations/accept/3f3d5ebe-ea27-41eb-9746-c5d41ddedb29

Normal Flow

The Employer would be able to login to the portal through a URL provided to them via an email. The actor(s) would be able to login using the email id and password. The actor(s) would get below data fields to fill for logging in. this login page have a Forgot password?. In case The actor(s) would forget their password they can click on the Forgot Password link to Reset Password.

Data Elements - Login

Field/Element Name	Type	Rules/Validations

Enter your Company Name (M)	Input Area	• The actor should manually enter the Company Name. • The system should match the entered name with backend value. • If it doesn't match, the system should authenticate during login.
Email (M)	Input Area	• The email address should be provided in the system. • The system should match the entered email address with the stored database value and authenticate during login.
Password (M)	Input Area	• The system should allow the password set by the actor(s). • The entered password should match the stored value (including case sensitive check) and authenticate during login. **Note:** *The password should be in encrypted form in the database.*
Login	Button	• When the login button is clicked, the system should match the data with the actor account entries available in the database. • The system should highlight the field border with red color if any mandatory field is missed with an error alert. • If an actor enters wrong login credentials (Email or Password) then should not be allowed to log in and show a message that **"You have entered an invalid email or password. Please enter valid account details"**. • On successful authentication (if entered credentials are correct), the system should allow an actor to log in into the employer portal. • The system should be able to store log details like IP address, browser name, and device.
Forgot Password? Click Here	Link	• The system should allow the actor(s) to set a new password through reset password link. **Note:** *This feature is described in a separate use case.*

5.3 Forgot Password?

ID: UC_E_03	
Description	As an Employer, I should be able to reset the password if I forgot the password by using the registered email address so that I can log in through the new password.
Actor(s)	Employer

Pre-Conditions	• The actor(s) must have a proper internet connection. • The actor(s) would be on the login page. • The actor(s) would have clicked on the Forgot Password link on the login page.
Post-Conditions	• On clicking the Forgot Password? Link on the login page. Actors would be able to change their password.
Business Rules	• The actor(s) should be able to go to the forgot password page to reset the password by entering a valid email. • The system should not accept any invalid email. • The system should allow the actor to reset the password if the entered email is valid. • The system would allow actors to be directed to the login page after resetting the password. • The system will trigger an email with a reset password link.
Alternate Flow	N.A
Email	*Subject: Reset your password* *From: < Support >@yourdomain.com* *To: <SUBMITTED_EMAIL_ADDRESS>* *Hey <Employer Name>,* *As per your request regarding reset password, please click the link below.* *< Reset Password Link>* *If you have not requested for password recovery, then kindly ignore this email.* *Thanks,* *<Help Desk>*
Wireframe	https://app.lucidchart.com/invitations/accept/43170f07-4303-4463-b247-1e55751c8ad9

Normal Flow

The Employer should be able to reset password in case they are not able to log in. This can be done from the login page by clicking on the Forgot Password?link. On clicking it the actor(s) would get a page where they can enter the provided email address and click on the Submit button. And use the link sent on their email to reset the password. The page where they can add their email address for validation would have the following data elements.

Data Elements - Reset password

Field/Element Name	Type	Rules/Validations
Email (M)	Input Area	• The field would take the email address provided in the system.
Submit	Button	• The system should make a check on the data field with the backend data after the submit button is clicked. • If the data matches the entered data the system will send an email with a reset password link. • If the Entered data doesn't match then the submit

		button. Then the system would highlight the field border with red color & show the message "Invalid Email address".

Note : After opening the link the actor will land on the reset password page. And it contains the following data elements

Data Elements - forgot password > Reset page

Field/Element Name	Type	Rules/Validations
Enter new password (M)	Input Area	• The system should allow the actor(s) to set the password. • The password can be alphanumeric. • The password must not be more than 8 characters. • If the password entered is more than 8 characters, the Data field will be highlighted with red color with the message**" Limit exceeded ."** **Note:** *The password should be in encrypted form in the database.*
Re-enter password (M)	Input Area	• The actor needs to re-enter the password. • The system will match the confirm password with the password set by the user. • If they don't match, the system will highlight the data field with the message **"Password doesn't match"**.
Submit	Button	• When the submit button is clicked, the system should check if the mandatory fields are entered or not. • On successful authentication (if entered credentials are correct), the system should allow an actor to reset the password. • The system will trigger an email to the registered email address
Email (After Password changed)	System-Generated	*Subject: Reset your password* *From: < Support >@yourdomain.com* *To: <SUBMITTED_EMAIL_ADDRESS>* *Hey <Employer Name>,* *As per your request, your password has changed successfully.* *Thanks,* *<Help Desk>*

5.4 Employer Portal

ID: UC_E_04

Description	As an Employer, I should be able to land at the Employer Portal after login so that I could use the modules available to me.
Actor(s)	Employer
Pre-Conditions	• The actor(s) must have a proper internet connection. • The actor(s) should be logged in to his/her interface.
Post-Conditions	• The actor(s) would be able to use the provided modules.
Business Rules	• The Employer should direct to the Home by default once they log in to their portal. • The Employer would be able to register new employees through the link inside the portal.
Alternate Flow	N.A
Wireframe	https://app.lucidchart.com/invitations/accept/3f851bec-d268-4740-a6f3-c4e4c35a8093

Normal Flow

The Employer Portal would contain below menu elements along with logout feature & Register employee link :
- Home - On clicking this the actor would view a page where they could see their prefilled personal and professional details along with their picture to the left side of the page. They could also edit the details by clicking on the Edit icon provided to the extreme left of the page above their picture under the Employer portal on the same page.
- Add Employees - On clicking this the actor would view a page where they can add the employee details through tabular form format provided under Add Employees on the same page.
- Manage Employees - On clicking this the actor would view a page where he/she can see all the employees with their picture , Employee Id and status also they can edit and delete the employee details also they can delete all employee records as well.

Note : We are considering a horizontal menu option consisting above menus with the logout feature on the top right corner of the portal.

5.5 Employer Portal > Home

ID: UC_E_05	
Description	As an Employer, I should have access to Home where I can see my details and different modules on the page.
Actor(s)	Employer
Pre-Conditions	• The actor(s) must have a proper internet connection. • The actor(s) should be logged in to their portal. • The actor should be in Employer Portal > Home..
Post-Conditions	• The actor should be able to see their prefilled details with their image on the Home where they can edit their details.
Business Rules	• The system would allow the actor to see the prefilled details on their Home. • The system would allow the actor to Edit their details by clicking on the Edit Icon provided to them. • On clicking on the Edit icon the details field must change to editable fields.

	• The system should save the changes made by the actor on the backend database created and update the database.
Alternate Flow	N.A
Wireframe	https://app.lucidchart.com/invitations/accept/3f851bec-d268-4740-a6f3-c4e4c35a8093

Normal Flow

The section of the **Home** page would contain prefilled details of the employer with the image where they can upload or remove the current image by clicking on the option buttons below the image. They could edit their details by clicking on the edit icon. The section will have these data elements.

Data Elements - Employer Portal > Home

Field/Element Name	Type	Rules/Validations
Employer Image	Image	• The system would show the image of the Employer if they have uploaded it. • By default it should be blank in case actors have not uploaded any. • They could upload or remove the image by provided option buttons below the image
Personal Details Field	Prefilled Text	• The system will show the prefilled details.
Professional Details Field	Prefilled Text	• The system will show the prefilled details.
RemoveImage	Button	• The system should allow the actor to change the image on clicking on the button. • On clicking the remove button the current image will get removed.
Upload Image	Button	• The system should allow the actor to upload images. • The system should allow the actor to select the image from their device.. • The image format should be .jpeg,.PNG. • The total image size should be 5 Mb.
Action	Edit (Icon)	• By clicking on the Edit icon the employer detail fields will become editable. • And they could add or update the details.
Save	Button	• By clicking on the save button the system will validate all the data fields. • The system will update the database maintained at backend.

5.6 Employer Portal > Manage Employees

ID: UC_E_06	
Description	As an Employer, I should have access to see & manage all the employees details.
Actor(s)	Employer
Pre-Conditions	- The actor(s) must have a proper internet connection. - The actor(s) should be logged in to the portal. - The actor should be in the Manage Employees menu under the Employer portal.
Post-Conditions	The actor should be able to view all the employees in a list view with pagination and modules available on it.
Business Rules	- The page should show the added employees along with all the employees. - The system should allow actors to ACTIVE/ INACTIVE details from the records. - The system should allow the actor to search the employees through employee id & Name. - The system should set Employee Id as the primary key in the database created on the backend. - The system should allow editing of the selected employee details by Edit Icon on the page. - The system would direct the actor to employee details for editing. - The listing should show 20 entries along with the pagination feature. - The system should maintain the same data backend in the database.
Alternate Flow	N.A

Normal Flow

The section of the **Manage Employees** page would contain a list of All employees with their details as their picture ,name. Joining date,Designation,Employee Id and status.. There would be a Search by Employee Id/ Name wherein the user actor needs to mention the employee id/ Name and employee would be auto shown. The list would have below data elements.

Data Elements - Manage Employees

Field/Element Name	Type	Rules/Validations
Search by Employee Id/ Name	Input Area	- This field would be placed above the list on the top left side. - This field allows the actor to search for employees by entering the employee id or Name.
Action	Active/Inactive (Toggle Bar)	The actor would be able to activate or deactivate the employee record using a toggle bar.
Employee Image	Prefilled	It should show the Employee image of the employee
Employee Name	Prefilled	It should show the employee name mentioned in the system.

Joining Date	Prefilled	• It should show the joining date of the employee as per mentioned.
Designation	Prefilled	• The system should show the designation of the employee as per mentioned.
Employee Id	Prefilled	• The system should be able to show the Employee Id as mentioned in the system.
Status	Prefilled	• The system should be able to show their status as Active/ Inactive according to the action selected by the actor.
Actions	Edit (Icon)	• On clicking the edit icon, the actor would be able to see the Employee details with prefilled details which can be edited & saved. • The actor would be able to delete or update the details.

5.7 Employer Portal > Add Employees

ID: UC_E_07	
Description	As an Employer, I would be able to register new employees and add their details to the system so that I could manage my employees.
Actor(s)	Employer
Pre-Conditions	• The actor(s) must have a proper internet connection. • The actor(s) should be logged in to the portal. • The actor should be on Add Employees under Employer Portal. • The actor(s) should have details regarding the registered employees.
Post-Conditions	• The actor must be able to add employees by filling details under tabular form format. And should be able to save,delete & update details.
Business Rules	• The Professional & Personal details should be filled in tabular format provided under the Add employee page. • The Employee Id must be manually added. • The system should allow uploading pictures in .jpeg, .png format. • The system should allow the actor to go back and forth in the Add details form. • The changes made by the employer must be reflected at the backend database maintained. • The system must add the newly added employees to the manage employee list.
Alternate Flow	N/A
Wireframe	https://app.lucidchart.com/invitations/accept/c41f5824-5535-415a-b848-b21af08fe5aa

Normal Flow

The Employer must be able to register new employees by clicking on the link provided and add their details to the system by clicking on the Add Employees Menu under Employer Portal. The Add Employee contains the following data elements as discussed below :

Data Elements - Add Employee

Field/Element Name	Type	Rules/Validations
Register Employee	Link	• It should allow the employer to register the new employees. • On clicking it the actor would be directed to the registration page. **Note : This feature is explained in a separate use case.**
Professional Details	Tab Panel (1)	• It should show the Professional Detail form on the same page under the Add Employee menu.
Professional Detail Form will have following Data Elements		
Employee Id (M)	Input Area	• The Employee Id can be manually added here by the Employer. • The Employer Id limit must not exceed 10 characters. • Employee Id can't be alphanumeric.
Joining Date (M)	Input Area	• The system would allow the actor to add a date with the calendar provided in the form.
Designation (M)	Input Area	• The system should allow the actor to write the designation of the employee. • The text limit should be 50 characters.
Company Name (M)	Input Area	• The system should allow the actor to write the company name. • The text limit should be 50 characters.
Department (M)	Input Area	• The system should allow the actor to write the Department of the employee. • The text limit should be 50 characters.
Reporting Manager (M)	Input Area	• The system should allow the actor to write the Reporting Manager Name. • The text limit should be 50 characters.
Division (M)	Input Area	• The system should allow the actor to write the division of the employee. • The text limit should be 100 characters.

Shift (M)	Input Area	• The system should allow the actor to write the shift of the employee. • The shift will contain whether the employee is working in India or Abroad. • The text limit should be 50 characters.
Employee Type (M)	Input Area	• The system should allow the actor to write the Employee type. • The text limit should be 50 characters.
Employee Status (M)	Input Area	• The system should allow the actor to write the Employee Status. • The status will have entry as working. • The text limit should be 50 characters.
Next >>	Button	• The system should allow the actor to move to the next tab to fill up personal details form. • The system would only allow the actor to move to the next tab if all the mandatory fields are filled. • The system will pop- up a message **"Mandatory fields are not filled".**
Personal Details	Tab Panel (2)	• It should show the Personal Detail form on the same page under the Add Employee menu.
Professional Detail Form will have following Data Elements		
Employee Image (M)	Input Area	• It should display the uploaded image of the employee.
Upload Image (O)	Button	• The system should allow the actor to upload images. • The system should allow the actor to select the image from their device.. • The image format should be .jpeg,.PNG. • The total image size should be 5 Mb.
First Name & Last Name (M)	Input Area	• The first and last names can have a maximum limit of 50 characters. • It shouldn't contain any numeric value.
Gender (M)	Radio Button	• The form would have a radio button to select the gender of the employee. • When one button is selected the other would be inactive.
DOB (M)	Input Area	• The system would allow the actor to add a date with the calendar provided in the form.

Email Id (M)	Input Area	• The system will allow the actor to enter the email address of the employee.
Contact Number (M)	Input Area	• The contact number should be 10 digits.
Permanent Address (O)	Input Area	• The system should allow the actor to enter the address of the employee. • The limit should be 200 characters.
<< Back	Button	• The system should allow the actor to move back to the last tab to fill up professional details form.
Save	Button	• The system should allow the actor to save all the entered fields. • The system will only save the details if the Mandatory fields are filled. • The system will pop- up a message **"Mandatory fields are not filled".** If mandatory fields are left out. • The system will save all the details and will reflect the same as on the database created.
Update	Button	• The system should allow the actor to update details after making changes in the employee details. • After clicking on the update button it will update the database at backend.

5.8 Logout

ID: UC_E_8	
Description	As an Employer, I would be able to sign out from the system.
Actor	Employer
Pre-Conditions	• The actor must have a proper internet connection. • The actor should be authenticated via email address verification.
Post-Conditions	• The actor gets logged-out from the system.
Business Rules	• The system should allow an actor to log out. • The system should be able to auto-logout an actor who is inactive on the system for more than 5 mins. • After logout, the actor should be directed to the authentication page wherein can get in using email authentication.
Alternate Flow	N/A
Normal Flow	

This feature should allow the actor to logout from the system on the click of the 'Logout' button/icon available on the header top right. If an actor is inactive (not performed any action after login) for 5 minutes then the system should auto logout and direct him/her to the login page.

5.9 Employee Registration

ID: UC_E_09	
Description	As an Employer, I should be able to register employees to the EMS (Employee Management System) so that they could login to their portal.
Actor(s)	Employer
Pre-Conditions	- The actor(s) must have a proper internet connection. - The actor should be logged in to his/her interface. - The actor(s) should be on Add Employees under Employer Portal. - The actor should have clicked the link inside the Add Employee Page.
Post-Conditions	On clicking the link, the actor should be able to register the employees and on successful registration an email with a login link will be sent to the employee.
Business Rules	- The registered employees database should be maintained under the Employer database maintained by a third party. - The system would make a check on whether the employee is registered or not. - The system would validate each data field. - The system would trigger an email with a Login link including Email Id & auto-generated password on successful registration to the employee email id.
Alternate Flow	N.A
Email	*Subject: Successfully Registered* *From: no-reply@yourdomain.com* *To: <SUBMITTED_EMAIL_ADDRESS>* *Hi <EMPLOYEE NAME>,* *You are successfully registered.* *Click Here to login <<Login Link>>* *Password : xxxxxxxxx* *Thanks,* *<Help Desk>*
Wireframe	https://app.lucidchart.com/invitations/accept/c49e0116-6ac1-4864-97dd-0ae9317e3cb2

Normal Flow

The Employer would be able to register the employees to the employee management portal through the registration form and on successful registration they will receive an email with a login link to their provided email address that would direct them to the employee login page, from where they could login to the employee portal. The Registration form will have the following data elements .

Data Elements - Employee Registration

Field/Element Name	Type	Rules/Validations
Enter First Name (M) Enter Last Name (M)	Input Area	• The first and last names can have a maximum limit of 50 characters. • It shouldn't contain any numeric value.
Enter Phone Number (M)	Input Area	• The system should allow the actor to enter their mobile number. • The mobile number should be 10 digits. • The system will check the number from the backend whether it is registered or not. • If the number is already registered. The data field will be highlighted in red color. Popping with the text **"This number is being already registered"**
City (M)	Input Area	• The city name should be filled manually. • It shouldn't contain any numeric value. • It should have a maximum limit of 50 characters.
State (M)	Input Area	• The city name should be filled manually. • It shouldn't contain any numeric value. • It should have a maximum limit of 50 characters.
Upload Image (O)	Upload	• The system should allow the actor to upload images. • The system should allow the actor to select the image from their device.. • The image format should be .jpeg,.PNG. • The total image size should be 5 Mb.
Address (M)	Input Area	• The address should be filled manually. • It should have a maximum limit of 200 characters.
Email (M)	Input Area	• The system would allow the customer to enter the email. • The check must be made on email from the backend whether it is being registered or not. • If the email was registered before. The system will highlight the field with red color with text **"This Email is registered"**
Register	Button	• When the Register button is clicked, the system should check if each mandatory field is entered or not. • The system should highlight the field border with red color if any mandatory field is missed with an error alert. • On successful authentication (if entered credentials are correct), the system should show a pop-up message **"Employee registered to the system."** • The system will send email with confirmation and

		login link with auto generated Password.

6. Use Cases: Employee

6.1 Login

ID: UC_EO_01	
Description	As an Employee, I should have login access so that I can log in to the portal and use permitted features.
Actor(s)	Employee
Pre-Conditions	- The actor(s) must have a proper internet connection. - The actor(s) must be registered by the employer. - The system should have sent the auto-generated password to the employee. - The system should have saved all data entered by the actor. - The actor(s) would have clicked the login URL as provided to them.
Post-Conditions	On successful authentication, the actor(s) would be able to log into the employee portal.
Business Rules	- By clicking on the login URL actor should be able to be directed to the login page. - The system should allow the actor to login by email id & password as provided to them. - The system should check on the entered fields. - If the entered fields don't match with the backend values. The field would be highlighted in red color showing text **"Invalid Input please enter valid inputs".**
Alternate Flow	N.A
Wireframe	https://app.lucidchart.com/invitations/accept/230a492d-0e74-44b4-bee8-f568158f35b8

Normal Flow

The Employee would be able to login to the portal through a URL provided to them through email. The actor(s) would be able to login using the email id and system-generated password. The actor(s) would get below data fields to fill for logging in. this login page have a Forgot password?. In case The actor(s) would forget their password they can click on the Forgot Password link to Reset Password.

Data Elements - Login

Field/Element Name	Type	Rules/Validations
Email (M)	Input Area	- The email address should be provided in the system. - The system should match the entered email address with the stored database value and authenticate during login.

Password (M)	Input Area	• The system should allow the password set by the actor(s). • The entered password should match the stored value (including case sensitive check) and authenticate during login. **Note:** *The password should be in encrypted form in the database.*
Login	Button	• When the login button is clicked, the system should match the data with the actor account entries available in the database. • The system should highlight the field border with red color if any mandatory field is missed with an error alert. • If an actor enters wrong login credentials (Email or Password) then should not be allowed to log in and show a message that **"You have entered an invalid email or password. Please enter valid account details"**. • On successful authentication (if entered credentials are correct), the system should allow an actor to log in into the employer portal. • The system should be able to store log details like IP address, browser name, and device.
Forgot Password? Click Here	Link	• The system should allow the actor(s) to set a new password through reset password link. **Note:** *This feature is described in a separate use case.*

6.2 Forgot Password?

ID: UC_EO_02	
Description	As an Employee, I should be able to reset the password if I forgot the password by using the registered email address so that I can log in through the new password.
Actor(s)	Employee
Pre-Conditions	• The actor(s) must have a proper internet connection. • The actor(s) would be on the login page. • The actor(s) would have clicked on the Forgot Password link on the login page.
Post-Conditions	• On clicking the Forgot Password? Link on the login page. Actors would be able to change their password.

Business Rules	• The actor(s) should be able to go to the forgot password page to reset the password by entering a valid email. • The system should not accept any invalid email. • The system should allow the actor to reset the password if the entered email is valid. • The system would allow actors to be directed to the login page after resetting the password. • The system will trigger an email with a reset password link.
Alternate Flow	N.A
Email	*Subject: Reset your password* *From: < Support >@yourdomain.com* *To: <SUBMITTED_EMAIL_ADDRESS>* *Hey <Employee Name>,* *As per your request regarding reset password, please click the link below.* *< Reset Password Link>* *If you have not requested for password recovery, then kindly ignore this email.* *Thanks,* *<Help Desk>*
Wireframe	https://app.lucidchart.com/invitations/accept/64b4d532-162f-424b-9add-7cd80b622ea2 https://app.lucidchart.com/invitations/accept/43170f07-4303-4463-b247-1e55751c8ad9

Normal Flow

The Employee should be able to reset password in case they are not able to log in. This can be done from the login page by clicking on the Forgot Password?link. On clicking it the actor(s) would get a page where they can enter the provided email address and click on the Submit button. And use the link sent on their email to reset the password. The page where they can add their email address for validation would have the following data elements.

Data Elements - Reset password

Field/Element Name	Type	Rules/Validations
Email (M)	Input Area	• The field would take the email address provided in the system.
Submit	Button	• The system should make a check on the data field with the backend data after the submit button is clicked. • If the data matches the entered data the system will send an email with a reset password link. • If the Entered data doesn't match then the submit button. Then the system would highlight the field border with red color & show the message "Invalid Email address".

After opening the link the actor will land on the reset password page. And it contains the following data elements.

Data Elements - forgot password > Reset page

Field/Element Name	Type	Rules/Validations
Enter new password (M)	Input Area	• The system should allow the actor(s) to set the password. • The password can be alphanumeric. • The password must not be more than 8 characters. • If the password entered is more than 8 characters, the Data field will be highlighted with red color with the message" **Limit exceeded ."** • **Note:** *The password should be in encrypted form in the database.*
Re-enter password (M)	Input Area	• The actor needs to re-enter the password. • The system will match the confirm password with the password set by the user. • If they don't match, the system will highlight the data field with the message **"Password doesn't match"**.
Reset	Button	• When the Rest button is clicked, the system should check if each field is entered or not. • On successful authentication (if entered credentials are correct), the system should allow an actor to reset the password. • The system will trigger a message if a mobile number is entered. • And an email to the registered email address.
Email (After the password is changed)	System-generated	*Subject: Reset your password* *From: < Support >@yourdomain.com* *To: <SUBMITTED_EMAIL_ADDRESS>* *Hey <Employee Name>,* *As per your request, your password has changed successfully.* *Thanks,* *<Help Desk>*

6.3 Employee Portal

ID: UC_EO_03	
Description	As an Employee, I should be able to land at the Employee Portal after login so that I could use the modules available to me.
Actor(s)	Employee

Pre-Conditions	• The actor(s) must have a proper internet connection. • The actor(s) should be logged in to his/her interface.
Post-Conditions	• The actor(s) would be able to use the provided modules.
Business Rules	• The actor should be directed to the Home by default once they log in to their portal.
Alternate Flow	N.A

Normal Flow

The Employee Portal would contain below menu elements along with logout feature:
- User Icon : It would display the picture of the employee.
- About Employer - On clicking this link the actor would view the employer profile but can't be able to make any changes. it should be present on the extreme top left of the portal .
- Home - On clicking this the actor would view a page where they could see their prefilled personal and professional details along with their picture to the left side of the page. They could also edit the details by clicking on the Edit icon provided to the extreme left of the page above their picture under the Employer portal on the same page.
- Add Details - On clicking this the actor would view a page where they can add the employee details through tabular form format provided under Add Employees on the same page.

Note : We are considering a horizontal menu option consisting above menus with the logout feature on the top right corner of the portal.

6.4 Employee Portal > Home

ID: UC_EO_04	
Description	As an Employee, I should have access to Home where I can see my details and access different modules on the page.
Actor(s)	Employee
Pre-Conditions	• The actor(s) must have a proper internet connection. • The actor(s) should be logged in to their portal. • The actor should be in Employee Portal > Home.
Post-Conditions	• The actor should be able to see their prefilled details with their image on the Home and Important Messages Box.
Business Rules	• The system will by default show Home to the employee after login.
Alternate Flow	N/A
Wireframe	https://app.lucidchart.com/invitations/accept/47aa5eb5-caa2-4dda-b0c9-d29d7971e7ec

Normal Flow

The actor would see Home once they log in where they could see their prefilled details along with an important messages box where they could see important information. The Home would contain these Data Elements.

Data Elements - Home

Field/Element Name	Type	Rules/Validations
Employee Picture	Image Icon	• The system would show the image of the Employee if they have uploaded it. • By default it should be blank in case actor(s) have not uploaded any.
Personal Details Field	Prefilled Text	• The system would show the prefilled details which are non-editable.
Professional Details Field	Prefilled Text	• The system would show the prefilled details which are non-editable.
Important Messages	Message Box	• The Message Box would show the important information inside the message box. • If new information circulates it would show that otherwise it would show the old information.

6.5 Employee Portal > Add Details

ID: UC_EO_05	
Description	As an Employee, I should be able to add my details to the system through the Add Details menu available under Employee Portal.
Actor(s)	Employee
Pre-Conditions	• The actor(s) must have a proper internet connection. • The actor(s) should be logged in to the portal. • The actor should be on Add Details under Employee Portal.
Post-Conditions	• The actor must be able to add their details by filling details under tabular form format. And should be able to save their details.
Business Rules	• The Professional & Personal details should be filled in tabular format provided under the Add Details page. • The Employee Id must be manually added. • The system should allow uploading pictures in .jpeg, .png format. • The system should allow the actor to go back and forth in the Add details form. • The changes made by the employee must be reflected at the backend database maintained. • The system must reflect the newly added details to the prefilled employee details on their portal home, also they must be visible to the Employer so that they could Add the employees to their record.
Alternate Flow	N/A
Wireframe	https://app.lucidchart.com/invitations/accept/b25a1270-9d3d-4449-b0cd-61b69cce2458
Normal Flow	

The Employee must be able to add details to the system by clicking on the Add Details Menu under Employee Portal. The Add Details page would contain the following data elements as discussed below :

Data Elements - Add Details

Field/Element Name	Type	Rules/Validations
Professional Details	Tab Panel (1)	• It should show the Professional Detail form on the same page under the Add Details menu.
Professional Detail Form will have following Data Elements		
Employee Id (M)	Input Area / Prefilled	• The Employee Id would be prefilled. • The system would allow the actor to edit the field as well. • The Employer Id limit must not exceed 10 characters. • Employee Id can't be alphanumeric.
Joining Date (M)	Input Area	• The system would allow the actor to add a date with the calendar provided in the form.
Designation (M)	Input Area	• The system should allow the actor to write the designation of the employee. • The text limit should be 50 characters.
Employer Name (M)	Input Area	• The system should allow the actor to write the Employer Name. • The text limit should be 100 characters.
Department (M)	Input Area	• The system should allow the actor to write the Department of the employee. • The text limit should be 50 characters.
Reporting Manager (M)	Input Area	• The system should allow the actor to write the Reporting Manager Name. • The text limit should be 50 characters.
Division (M)	Input Area	• The system should allow the actor to write the division of the employee. • The text limit should be 50 characters.
Shift (M)	Prefilled	• The system should show the prefilled area of the shift.
Employee Type (M)	Prefilled	• The system should show the prefilled area of the Employee Type.
Employee Status (M)	Prefilled	• The system should show the prefilled area of the Employee Status.
Work Experience (M)	Input Area	• The word limit shouldn't exceed 200 words.

Skills (M)	Input Area	• The skill field should not contain more than 200 words.
Ongoing Project Details (M)	Input Area	• The limi must not exceed 500 words.
Next >>	Button	• The system should allow the actor to move to the next tab to fill up personal details form. • The system would only allow the actor to move to the next tab if all the mandatory fields are filled. • The system will pop- up a message **"Mandatory fields are not filled".**
Personal Details	Tab Panel (2)	• It should show the Personal Detail form on the same page under the Add Details menu.
Professional Detail Form will have following Data Elements		
Employee Image (M)	Input Area	• It should display the uploaded image of the employee.
Upload Image (M)	Button	• The system should allow the actor to upload images. • The system should allow the actor to select the image from their device.. • The image format should be .jpeg,.PNG. • The total image size should be 5 Mb.
First Name & Last Name (M)	Input Area	• The first and last names can have a maximum limit of 50 characters. • It shouldn't contain any numeric value.
Gender (M)	Radio Button	• The form would have a radio button to select the gender. • When one button is selected the other would be inactive.
DOB (M)	Input Area	• The system would allow the actor to add a date with the calendar provided in the form.
Blood Type (M)	Input Area	• The system should allow the actor to enter The employee blood type. • The field can have only these entries **A[+,-], B[+,-], AB[+,-] and O[+,-]** • It will be highlighted in red if the entered entries don't match with the above entries for blood type.
Email Id (M)	Input Area	• The system will allow the actor to enter the email address of the employee.
Contact Number (M)	Input Area	• The contact number should be 10 digits.

Emergency Contact Number (M)	Input Area	• The contact number should be 10 digits. • The Emergency Contact and Contact Number should not be the same. • The system will check on the field if it matches with the Contact Number field it will be highlighted with a red border showing a pop - up message **"Emergency contact can't be the same as contact"**.
PAN Number (M)	Input Area	• The PAN Number must be of 10 digits. • It can have alphanumeric entries. • The system will check if the entered PAN Number is valid or not. • It will be highlighted with red border and pop a message **"Invalid PAN"**
Aadhaar Number (M)	Input Area	• The Aadhaar Number must be of 12 digits. • It should contain only numeric values. • The system will check if the entered Aadhaar Number is valid or not. • It will be highlighted with red border and pop a message **"Invalid Aadhaar Number"**
Permanent Address (M)	Input Area	• The system should allow the actor to enter the address of the employee. • The limit should be 200 characters.
Current Address (M)	Input Area	• The system should allow the actor to enter the address of the employee. • The limit should be 200 characters. • The Current Address can be the same as a Permanent Address.
<< Back	Button	• The system should allow the actor to move back to the last tab to fill up professional details form.
Save	Button	• The system should allow the actor to save all the entered fields. • The system will only save the details if the Mandatory fields are filled. • The system will pop- up a message **"Mandatory fields are not filled".** If mandatory fields are left out. • The system will save all the details and will reflect the same as on the database created.

Note : The Employee can edit the already filled details inside the Add details by adding new details.

6.6 Logout

ID: UC_EO_6

Description	As an Employee, I would be able to sign out from the system.
Actor	Employer
Pre-Conditions	• The actor must have a proper internet connection. • The actor should be authenticated via email address verification.
Post-Conditions	• The actor gets logged-out from the system.
Business Rules	• The system should allow an actor to log out. • The system should be able to auto-logout an actor who is inactive on the system for more than 5 mins. • After logout, the actor should be directed to the authentication page wherein can get in using email authentication.
Alternate Flow	N/A

Normal Flow

This feature should allow the actor to logout from the system on the click of the 'Logout' button/icon available on the header top right. If an actor is inactive (not performed any action after login) for 5 minutes then the system should auto logout and direct him/her to the login page.

7. Non Functional Requirements

7.1 Performance

The application must be interactive and the delays involved must be less.In every action-response of the system, there should be no immediate delays.
The following pointer needs to be kept in consideration.
- Short response time for a given piece of work/any request
- High Throughput
- High availability of the computing system or application

7.2 Accessibility

The application must be responsive and should have:
- The user interface components should be presentable to users in ways they can perceive and predictable by the user.
- The design should not be in a way that causes seizures.
- The application pages, forms, layout should be neat, readable, and understandable.

7.3 Security

- The application would be equipped with basic security features ensuring that the application and its identity is properly verified.
- The application would ensure that users can only access data and services for which they have been properly authorized. Kellton Tech will ensure that unauthorized malicious programs don't infect the application.
- The system session auto logout should be at 5 minutes tigger in case no activity happens.
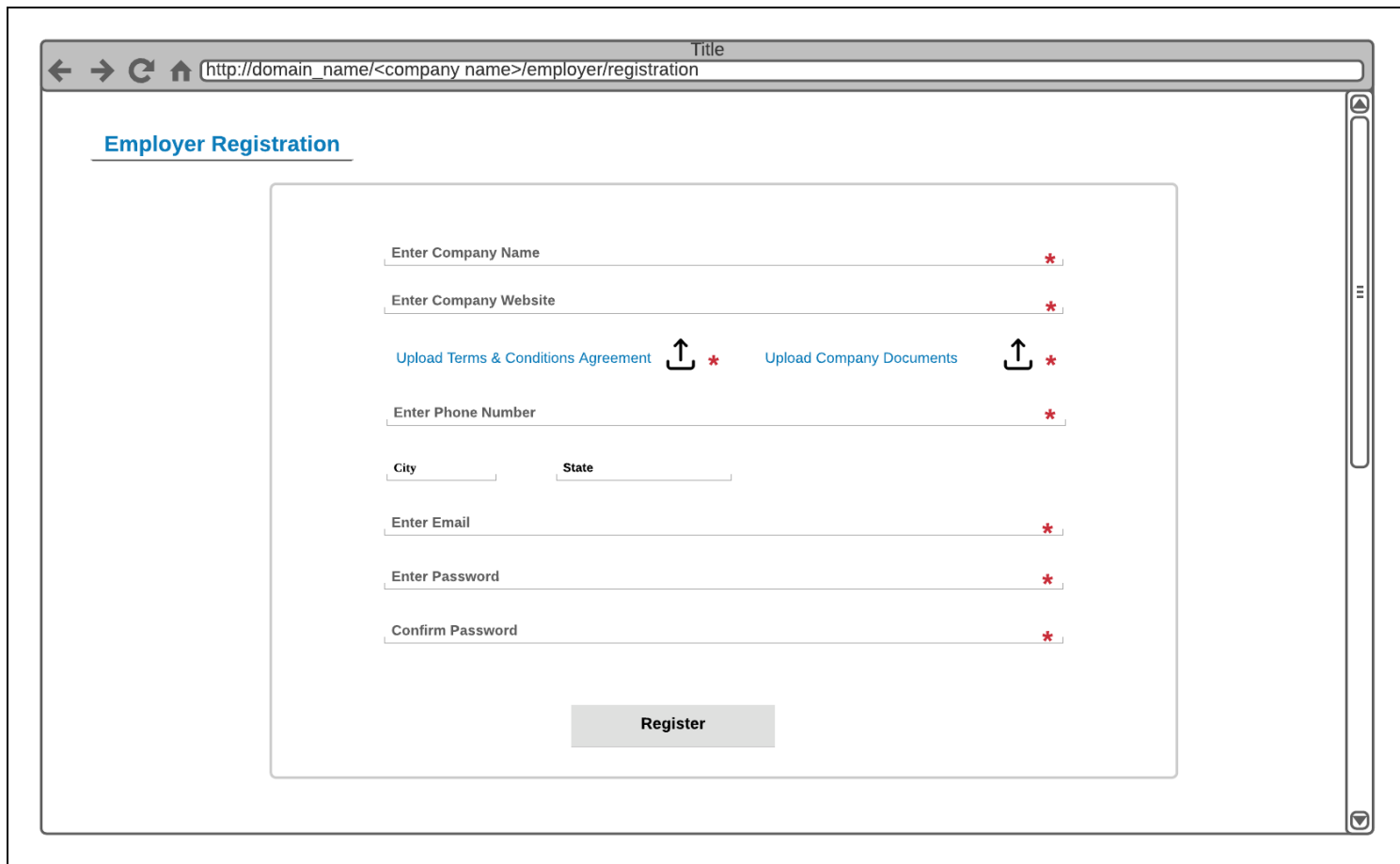
7.4   Scalability

- The application to be developed would be highly scalable and a modular approach needs to be taken for the development of the same.

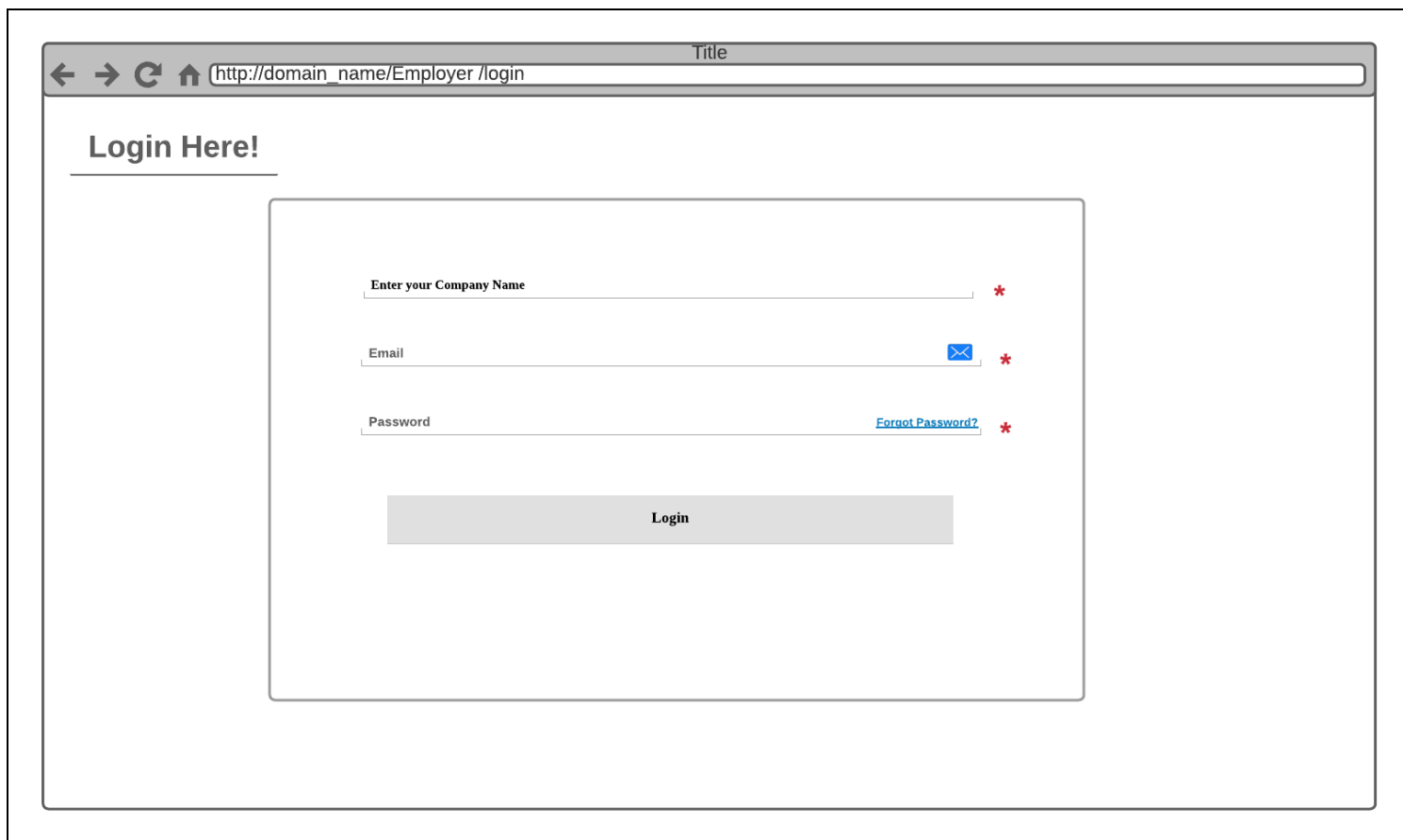## 8. Reference Wireframes

8.1 Employer Wireframes

- Registration
- Login
- Forgot Password?
- Employer Portal > Home
- Employer portal > Manage Employees
- Employer Portal > Add Employees
- Logout
- Employee Registration

Below are the reference wireframes of the Employer :

Title

http://domain_name/<company name>/employer/registration

Employer Registration

Enter Company Name *

Enter Company Website *

Upload Terms & Conditions Agreement ⬆ *   Upload Company Documents ⬆ *

Enter Phone Number *

City   State

Enter Email *

Enter Password *

Confirm Password *

Register

Title

http://domain_name/Employer /login
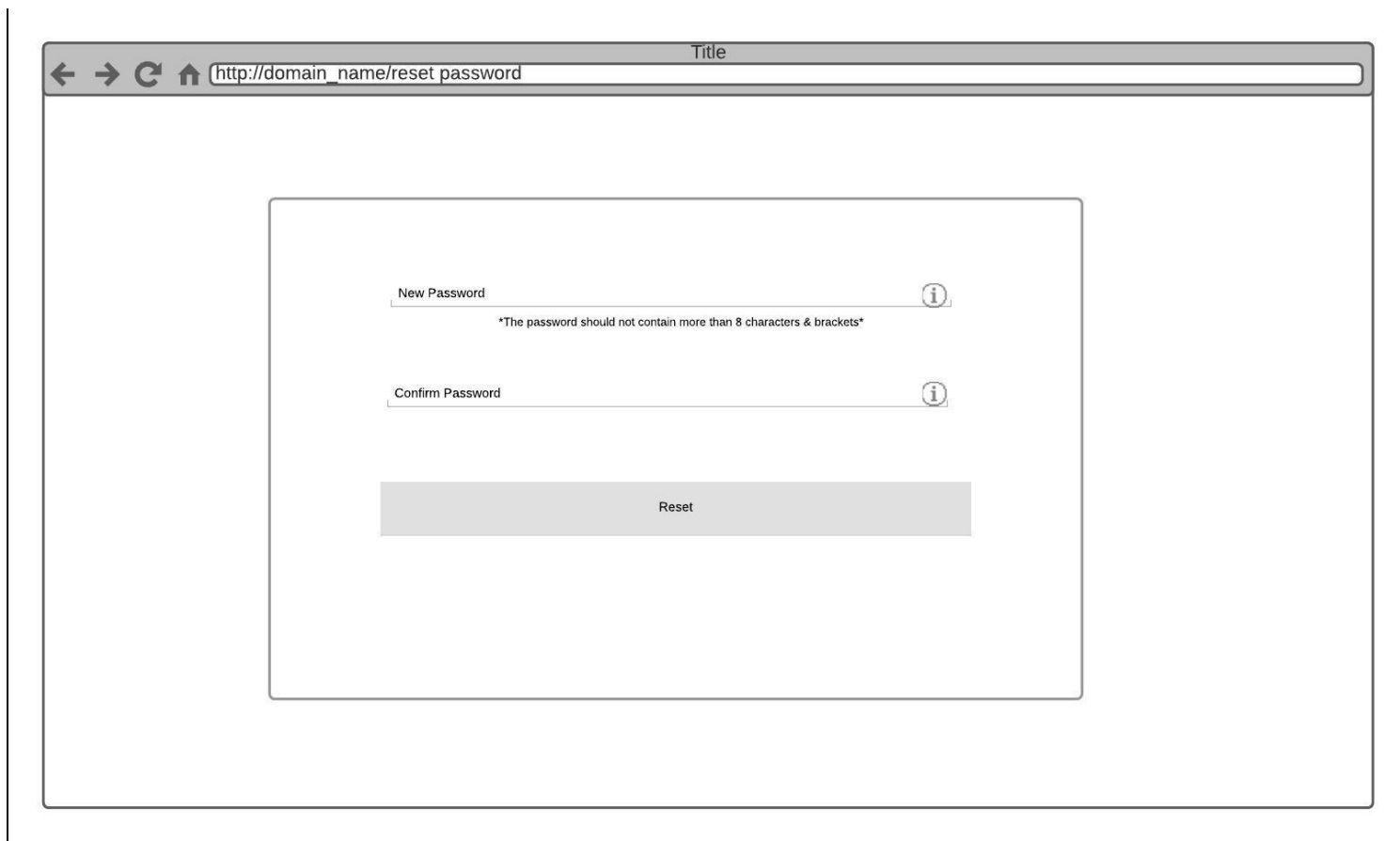
Login Here!

Enter your Company Name _____ *

Email _____ ✉ *

Password _____ **Forgot Password?** *

Login

Title

http://domain_name/forgot password

Email

Submit

Link to reset your password will be sent to your registered Email

Title

http://domain_name/reset password

New Password

The password should not contain more than 8 characters & brackets

Confirm Password

Reset

Title

http://domain_name/<company name>/employer portal/Home

Company Logo

Employer Portal

Home | Add Employees | ManageEmployees | Logout

Edit Details

Employer image

Remove Image   Upload Image

Professional Details

Desgination : xyx   Location : sdh   Company Name : AbcTech   Division : dhv

Date of joining : 4/87/2001   Work Experience : ddghkhgkjhjkhkhbhh

Skills : tytyutgytytgd, trtru,yuhh

Bank Details : xxxxxxxxxxxxxxxxxxxxxxxxxx

Personal Details

Name : gfgj   Last Name : fghjfhj   DOB : dd/mm/yy

Email : abc@gmail.com   Phone Number : 456456576

City : ytyjghjb   State : ffgfvgh   Gender :

Address : 404/ A GJHKBVKJJNB YGJHGVBBV V   Education : GEGIUFFRBGHGHB

After Clicking on the edit icon

Title

http://domain_name/<company name>/employer portal/ Home

Company Logo

Employer Portal

Home | Add Employees | ManageEmployees | Logout

Employer image

Remove Image   Upload Image

Professional Details

Desgination   Location   Company Name   Division

Date of joining   Work Experience

Skills

Bank/AccountDetails

Personal Details

Name   Last Name   DOB

Email   Phone Number

City   State   Gender :

Address   Educational Details

Save

Title
http://domain_name/<company name>/employer portal/add employee

Company Logo

Employer Portal

Home | Manage Employees | Logout

Add Employee

Register Employee

Tab 1 | Tab 2

Professional Details

Employee Id | Joining Date

Designation | Company Name

Department | Reoprting Manager

Division | Shift

Employee Type | Employee Stauts

Next>>

Title
http://domain_name/<company name>/employer portal/add employee

Company Logo

Employer Portal

Home | Manage Employees | Logout

Add Employee

Register Employee

Tab 1 | Tab 2

Personal Details

Employee Image

Upload Image

First Name | Last Name

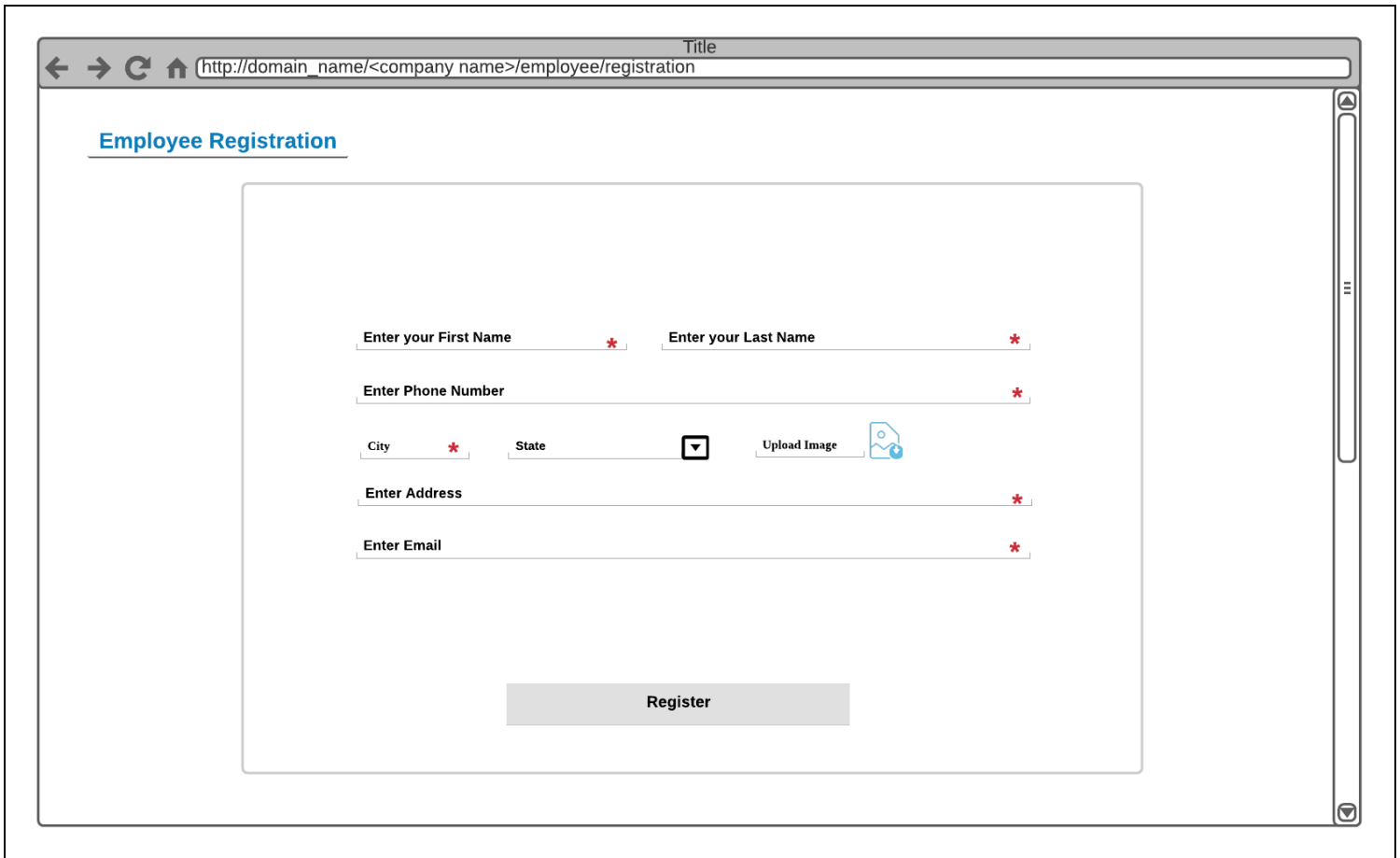Gender ● Male ○ Female | DOB

Email Id

Contact Number

State | City
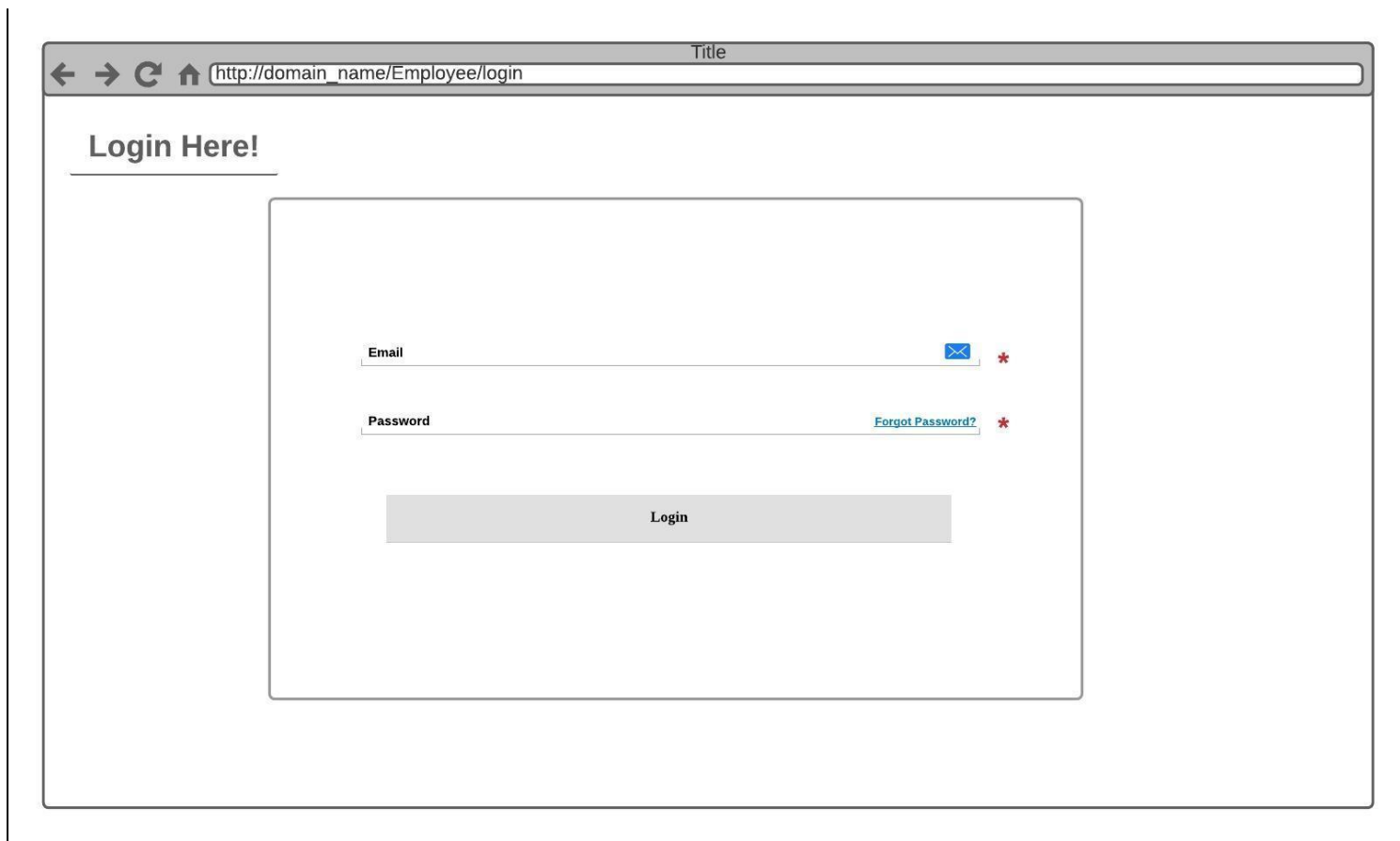
Permanent Address

Education Details
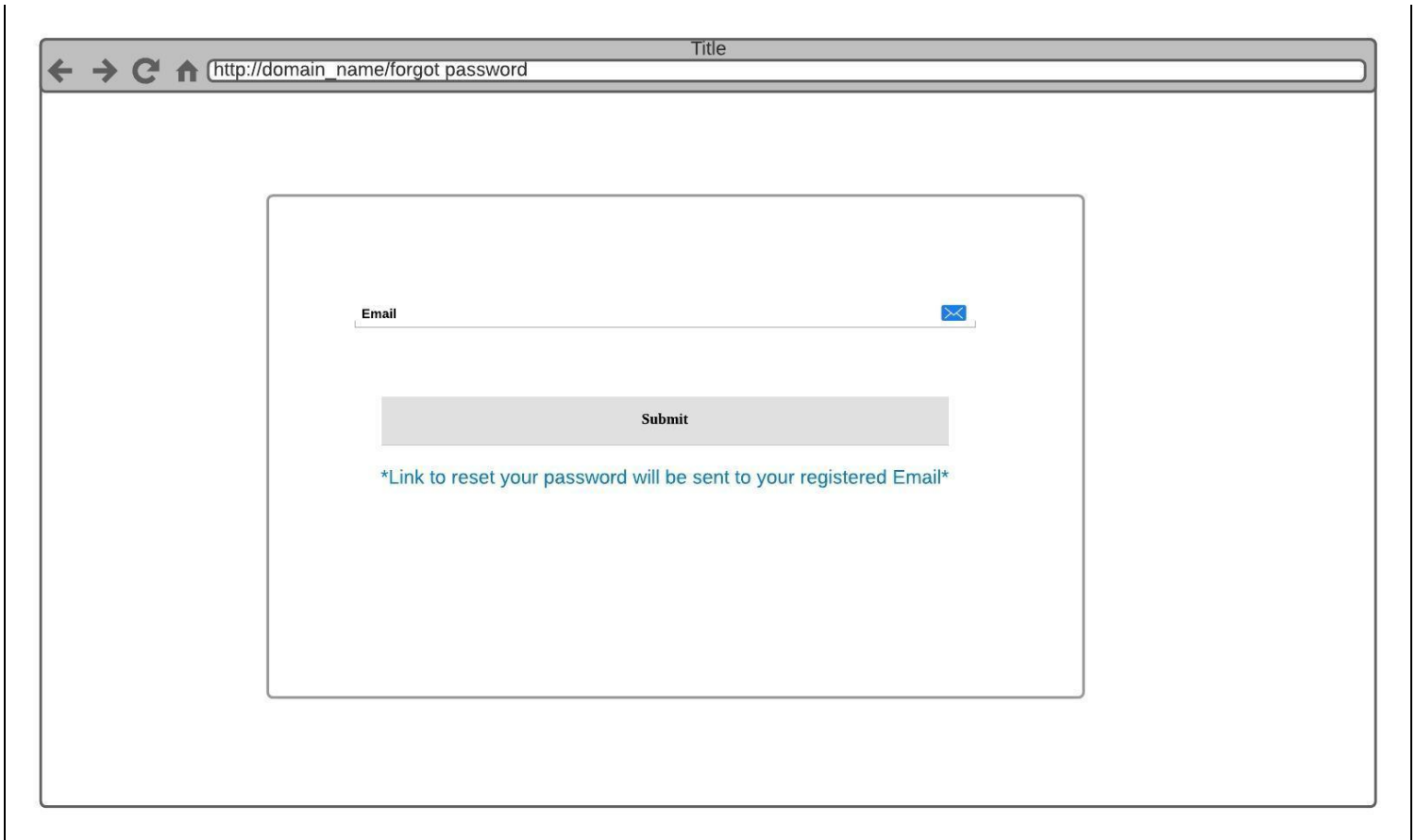
<< Back | Save | Update

8.2 Employee Wireframes

- Login
- Forgot Password?
- Employee Portal > Home
- Employee portal > Add Details
- Logout

Below are the reference wireframes of the Employee :

Title

http://domain_name/Employee/login

Login Here!

Email ✉ *

Password Forgot Password? *

Login

Title

http://domain_name/forgot password

Email

Submit

Link to reset your password will be sent to your registered Email

Title

http://domain_name/reset password

New Password   ⓘ
The password should not contain more than 8 characters & brackets

Confirm Password   ⓘ

Reset

Title

http://domain_name/<company name>/employee portal

Company Logo

About Employer

Home | Add Details | Logout

Employee Image

Professional Details

Employee Id : 16421045   Joining Date : 21/10/17   Status : Working

Desgination : Software Developer   Department : Delivery

Reporting Manager : Akil Kumar   Company Name : AbcTech   Division : xyz

Shift : INDIA   Employee Type : Employee

<<Important Messages>>

Personal Details

First Name : Nita   Last Name : Kumari   Gender : Female

Email Id : Nita.Kumari@gmail.com   PAN : DW1234   Aadhar Number : 1234563333

Contact Number : 7658456701   Emergency Contact Number : 9870432121   State : Haryana   City : Gurugram

Permanent Address : abc lane strret 4 near over-bridge, pin-70012, Haryana , Gurugram

Current Address : abc lane strret 4 near over-bridge, pin-70012, Haryana , Gurugram   DOB : 3 September,1996   Blood Type : B+

Hobbies : Traveling & Signing.   Skills : Persuasion, creative

Title

http://domain_name/<company name>/employer portal/add employee

Company Logo

About Employer

👤 | Home | Logout

Add Details

| Tab 1 | Tab 2 |

Professional Details

Employee Id :

Joining Date 📅

Designation

Employer Name

Department

Reoprting Manager

Division

Shift

Employee Type

Employee Stauts

Work Experience

Skills

Ongoing Project Details

Next>>

Title

http://domain_name/<company name>/employer portal/add employee

Company Logo

About Employer

👤 | Home | Logout

Add Employee

| Tab 1 | Tab 2 |

Personal Details

Employee Image

Upload Image

First Name

Last Name

Gender ⦿ Male ◯ Female

DOB 📅

Blood Type

Email Id

Contact Number

PAN Number

Aadhar Number

Emergency Contact Number

State

City

Permanent Address

Current Address

Hobbies

Educational Details

<< Back   Save