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Last but not the least, I would also like to thank my colleagues, who have co-operated during the preparation of my report and without them, this project has not been possible. Their ideas helped me a lot to improve my project report.

Todiwala Aarzin M. (201303100910043)

ABSTRACT

*"**Email Automation for Greeting Employees**" is a web application which will simplify the work of HR team. HR team has to send greetings to the employee, so by using this web application, we can greet employee for their* welcome on the first day*, on their birthday and on their work anniversary. The whole website is dynamic, which will fetch data from the user and will display on a template, that template will be emailed on the companies official grouped mail Id.*

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CHAPTER 1 INTRODUCTION

1.1 Overview

Email Automation for Greeting Employees is a web application which will simplify the work of HR team. HR team has to send greetings to the employee, so by using this web application, we can greet employee for their welcome on the first day, on their birthday and on their work anniversary.

1.2 Problem Definition

1.2.1 Welcoming new employee:

Whenever the new employee enter's the company, HR has to give an introduction of that person through email to the existing employees, so by generating this website, it will be really easy for HR to just fill up the details and the email will be sent to all employees.

1.2.2 Birthday Greetings:

Whenever there's employee's birthday HR need to get a graphic done through a graphics designer then attach it to the email. But after this website HR won't need graphic designer to design a graphics for a birthday greetings, as this website will make a graphic and that graphic will be sent to all employees through email.

1.2.3 Work Anniversary:

Whenever there's employee's work anniversary HR need to get a graphic done through a graphics designer then attach it to the email. But after this website HR won't need graphic designer to design a graphics for work anniversary greeting as this website will make a graphic and that graphic will be sent to all employees through email.

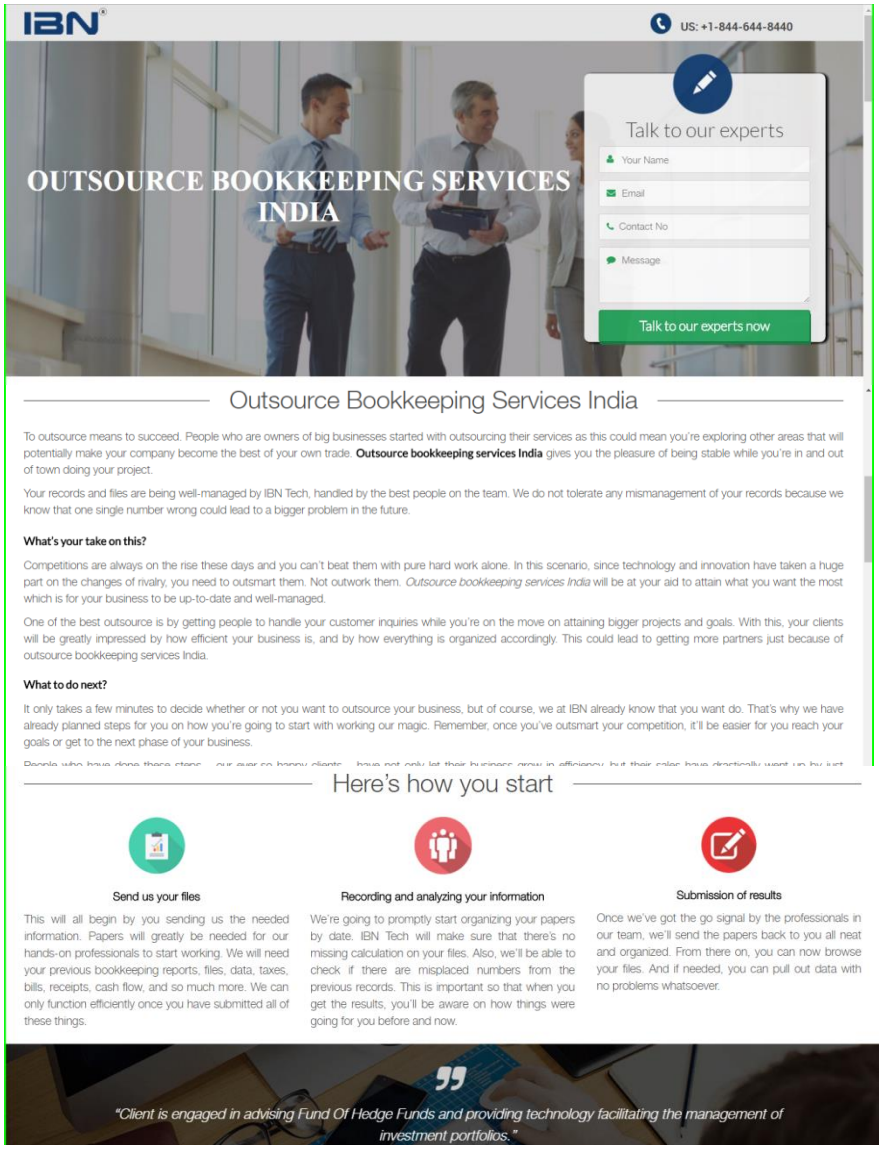
1.3 Scope of Project

To simplify the work of HR through making a website which will make template with sufficient data for welcoming new employee, for birthday and for work anniversary.

CHAPTER 2 TRAINING ACTIVITIES

During my internship, I acquired new knowledge on WordPress which is one of the largest CMS written in PHP with different types of plugins. I mainly worked on plugins like visual composer and thrive page builder were the main components I worked for. I was working for Landing Pages, Sales Pages and Blogs. Even revamping of existing pages was done by me.

Landing Pages (25 pages):



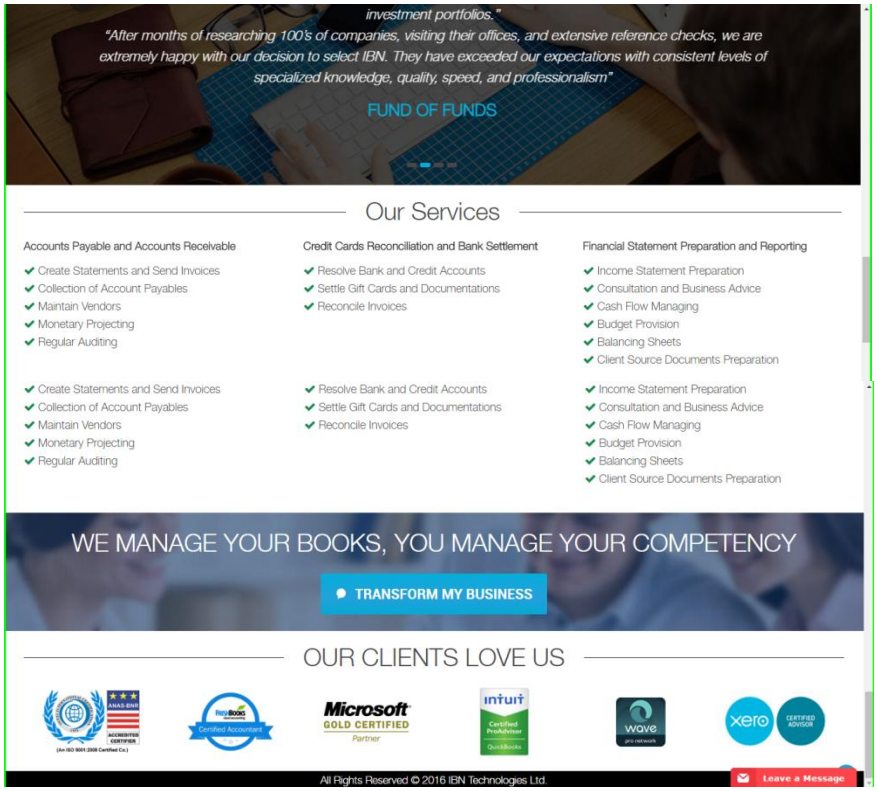


Figure 2-1 IBN Landing Pages

Blogs (29 blogs till todays date):

look into your business and see how financially fit it is. For some this means going back to see if you're on track, compared to new financial year goals and plans that you would have set prior to 30 June.

We often set resolutions that quickly fade with the stresses of business life. Here are a few tips to help you move forward, make those goals a reality and end the 2016-17 financial year on a good note!

1. Let's Talk

Make the time to talk about money. Don't wait for over spending, overdrafts or a financial crisis. Get clear on your needs and wants. Many small business owners think they can manage their taxes on their own, while you may think you are saving money you can actually hinder your business if finance is not your thing. Talk to your accountant about the information you must keep and the things you need to know.

2. Manage Your Information

Get organised! The quality of your information will determine the success of your business. Look into a good cloud accounting system such as Xero and automate as much as you can. You will be able to capture, store and keep track of invoices and receipts, together with the convenience of accessing anything, anywhere at any time including financial reports you need to manage, in order to determine the health of your business.

3. Create a Budget

Establish your income streams, determine fixed costs and include expenses. You may find the earnings left over after paying basic business expenses are being foolishly spent. Is your income increasing, stagnate or decreasing? The benefit of having a good accounting system like **Xero** is that you can include a budget and compare to actual monthly and end of year reports. Make sure to set aside time each month to evaluate your progress, adjust and make improvements if required.

4. Pay off Debt

Prioritise the process you pay off your debts. For loans, credit cards and other types of debt, arrange the debts according to the interest rate you are paying on those debts.
debt, arrange the debts according to the interest rate you are paying on those debts.
Plan on making additional payments even a little over the minimum monthly payment, this can make a huge difference in the long term. Then start paying down the loans and debts with the highest interest rate first.

5. Set Your Business Financial Goals

As Benjamin Franklin said "If you fail to plan, you are planning to fail". Whether your financial goals are small or big it is worth setting them so that they are concrete and you have something to work towards. Some are afraid to set BIG financial goals for fear of failure or because you don't think you're capable of achieving them. Start by breaking down those bigger goals into segments so that they appear more achievable and don't become so intimidating. Build a time frame around your financial goals and know what you need to do. Understand the mechanics behind your financial goals i.e. hours, number of projects etc. then move backward to determine timing.

Share 0 67 0 0

Figure 2-2 IBN Blog

Main Pages(ibnaccounting.com-28pages):

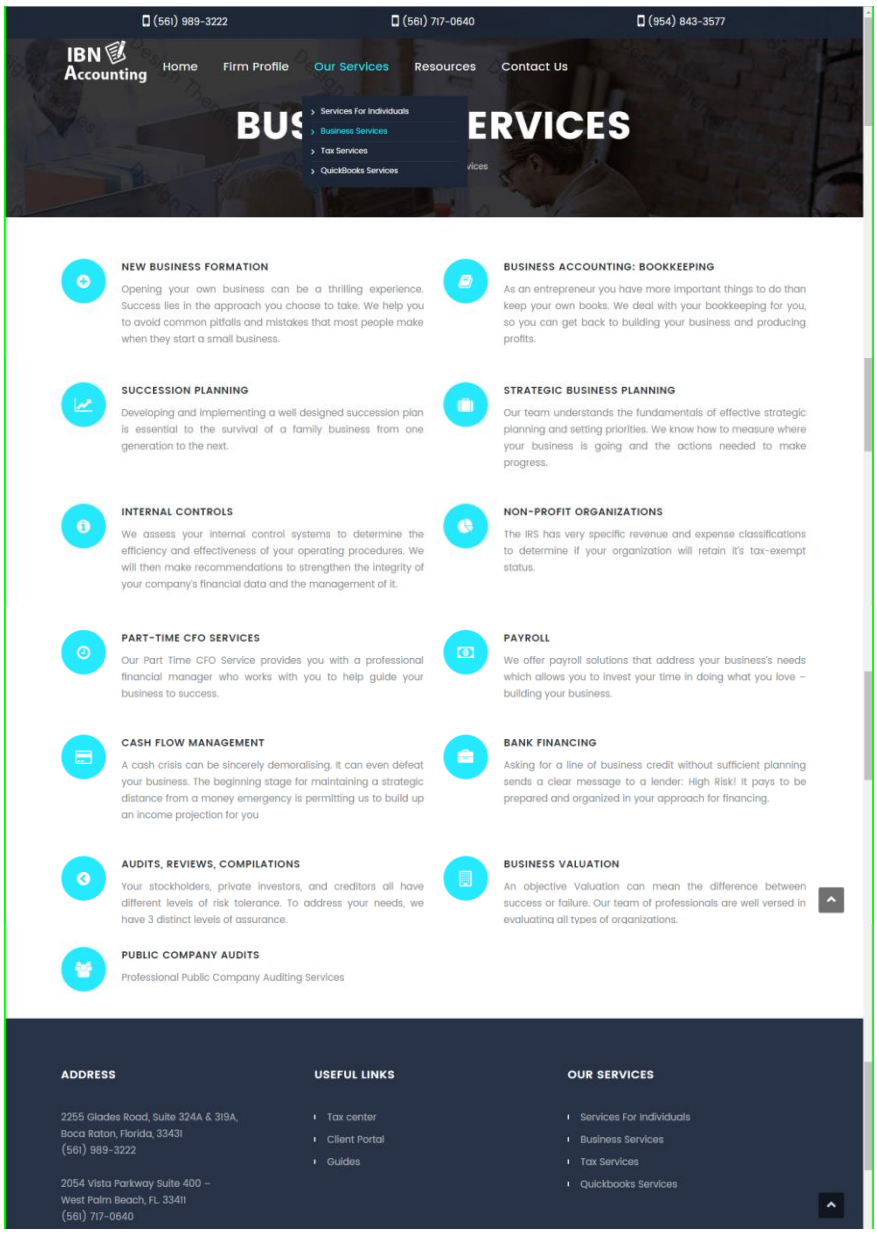


Figure 2-3 Page of IBN Accounting

Photoshop which is a photo editing software used by designers to design the images. These banners are designed for Blogs & Landing Pages and it also includes small icons for other landing pages:

Figure 2-4 Landing Page Banner

Figure 2-5 Blog Banner

Figure 2-6 Icons

I also learnt HTML5 and CSS3, which are the advanced versions of HTML and CSS.

Overall, it was a good experience working there and share a sense of responsibility. I also learnt with how to work in corporate world, how to work according to a client's requirements.

The whole internship of five months was quite beneficial in terms of acquiring knowledge.

CHAPTER 3 SYSTEM PLANNING

3.1 Project Development Approach

Each project needs to be developed with software model which makes the project with high quality, reliable and cost effective.

Software model used in my project is Waterfall Model:

Waterfall approach was first SDLC Model to be used widely in Software Engineering to ensure success of the project. In "The Waterfall" approach, the whole process of software development is divided into separate phases. In this Waterfall model, typically, the outcome of one phase acts as the input for the next phase sequentially.

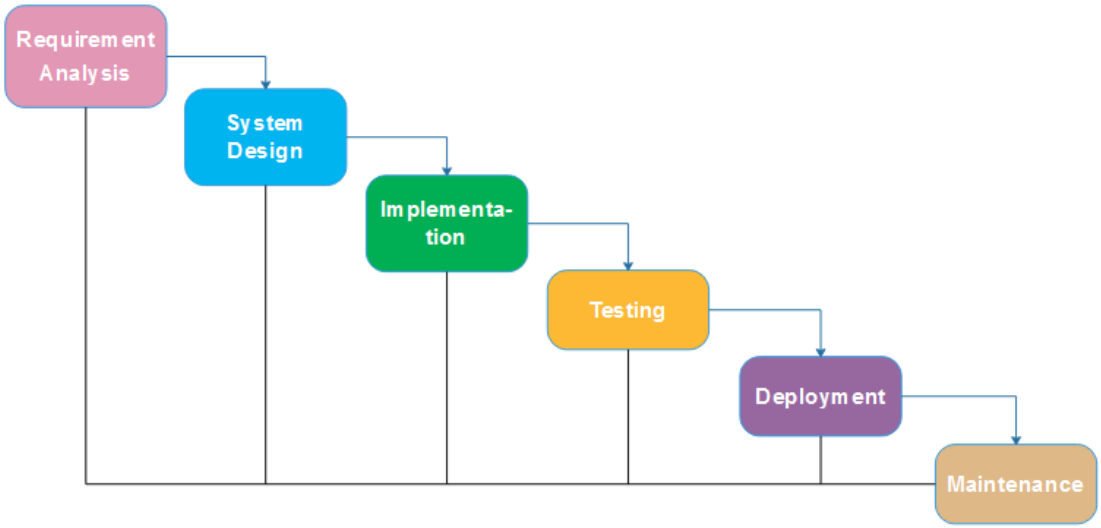


Figure 3-1 Waterfall model

The sequential phases in Waterfall model are –

Requirement Gathering and analysis – All possible requirements of the system to be developed are captured in this phase and documented in a requirement specification document.

System Design – The requirement specifications from first phase are studied in this phase and the system design is prepared. This system design helps in specifying

hardware and system requirements and helps in defining the overall system architecture.

Implementation − With inputs from the system design, the system is first developed in small programs called units, which are integrated in the next phase. Each unit is developed and tested for its functionality, which is referred to as Unit Testing.

Integration and Testing − All the units developed in the implementation phase are integrated into a system after testing of each unit.

Deployment of system − Once the functional and non-functional testing is done; the product is deployed in the customer environment or released into the market.

Maintenance − There are some issues which come up in the client environment. To fix those issues, patches are released. Also to enhance the product some better versions are released. Maintenance is done to deliver these changes in the customer environment.

Advantages of your software model:

To simplify the work of HR through making a website which will make a template with sufficient data for welcoming a new employee, for birthday and for work anniversary.

3.2 System Modules

Here are different modules, on which I had worked on.

3.2.1 HR Module

In HR module, HR will first login, then they can select any option like birthday, work anniversary or welcoming employee and at last when the template is done they will send that template through email to every employee by clicking on send button which is present below the template.

3.2.2 Department Module

Where all the data of the department will be stored.

3.3 Functional Requirements

Table 2.1 : Functional Requirements

ID	Title & Description
FR1	**Title: HRLogin** **Desc:** HR can logIn through the login page by entering username and password.
FR2	**Title: Option module** **Desc:** Here, three options would be given i.e., Welcoming Employee, Birthday and Work Anniversary.
FR3	**Title: Form page for welcoming new employee** **Desc:** In this module we can enter the information of new employee.
FR4	**Title: Edit Profile page** **Desc:** Select the item to be removed and the item will be removed.
FR5	**Title: Birthday form** **Desc:** In this module we can create a birthday template
FR6	**Title: Work anniversary form** **Desc:** In this module we can create a work anniversary template
FR7	**Title: Send an Email** **Desc:** In this module email will be sent through website.
FR8	**Title: Logout** **Desc:** In this module, it will either get logout or go to option page.

3.4 Non Functional Requirements

- **Usability**: Its easy to use, and its easy to learn.
- **Correctness**: Things are properly done.
- **Appearance**: It looks pleasant and even attractive, it often promots confidence in its use.
- **Usefulness**: Needs are relevant.
- **Delightfulness**: It goes beyond expectations in ways that create delight.
- **Capacity**: The capacity can be extended.

3.5 Timeline Chart

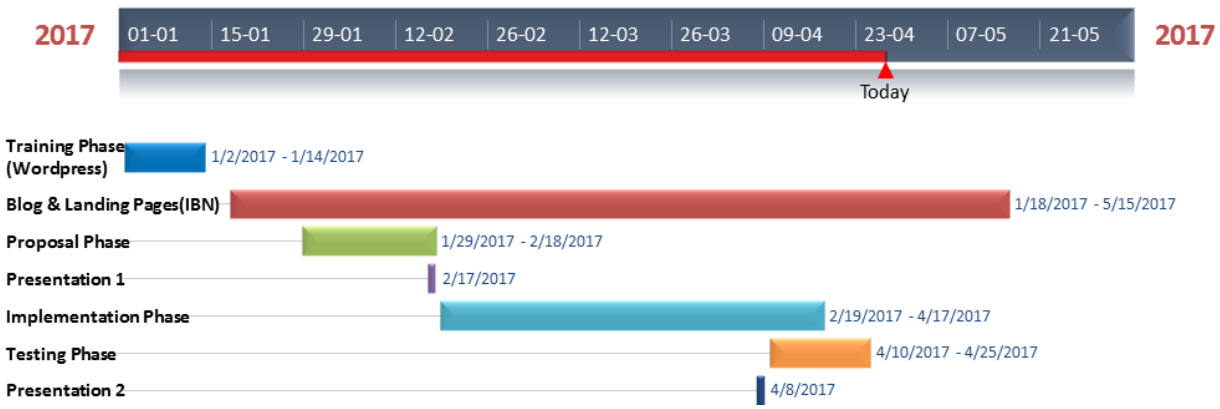


Figure 3-2 Timeline chart

CHAPTER 4 SYSTEM DESIGN

4.1 Use Case Diagram

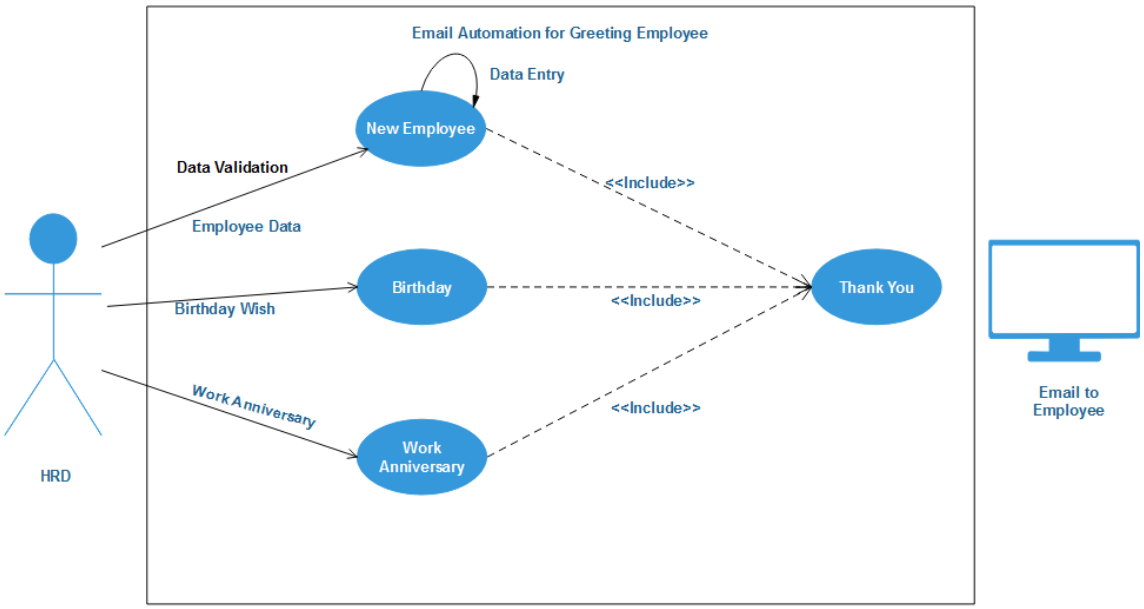


Figure 4-1 Use-case diagram

Desc: In this figure, we explain that HRD will validate the data and an email will be sent to employees.

4.2 Sequence Diagram

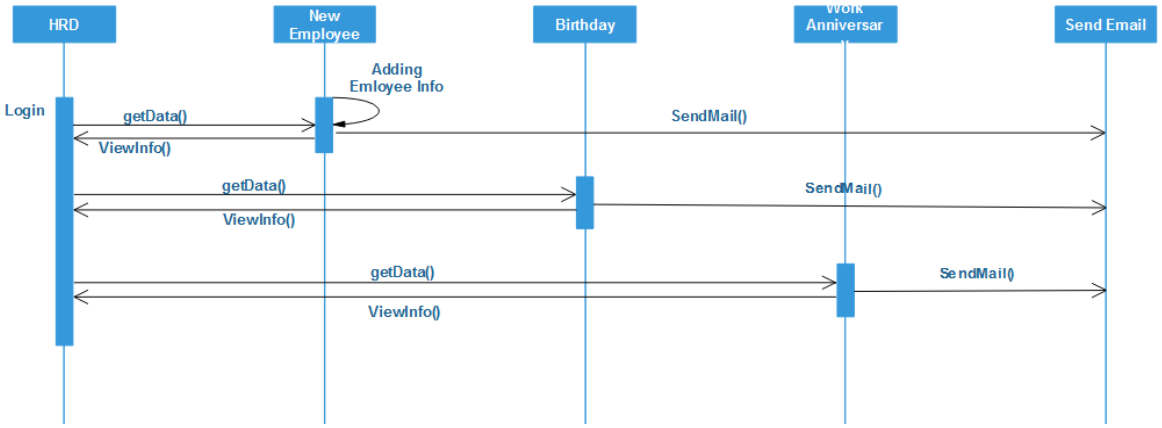


Figure 4-2 Sequence diagram

Desc: A sequence diagram is an interaction diagram that shows how objects operate with one another and in what order. The sequence from login to the end by sending mail is shown in this figure.

4.3 Activity Diagram

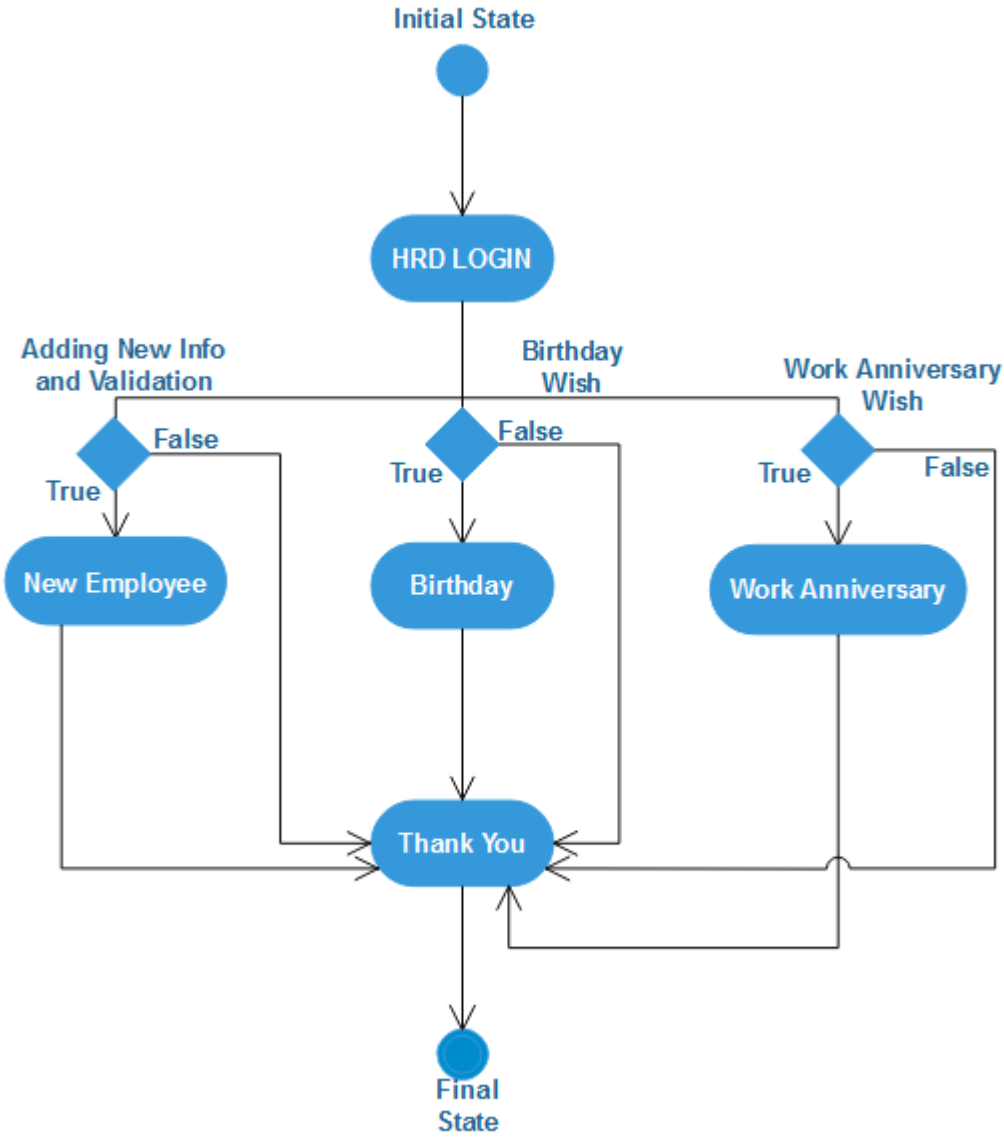


Figure 4-3 Activity diagram

Desc: Activity diagram is another important diagram in UML to describe dynamic aspects of the system. Starting from initial state to final state is shown in the figure.

4.4 Class Diagram

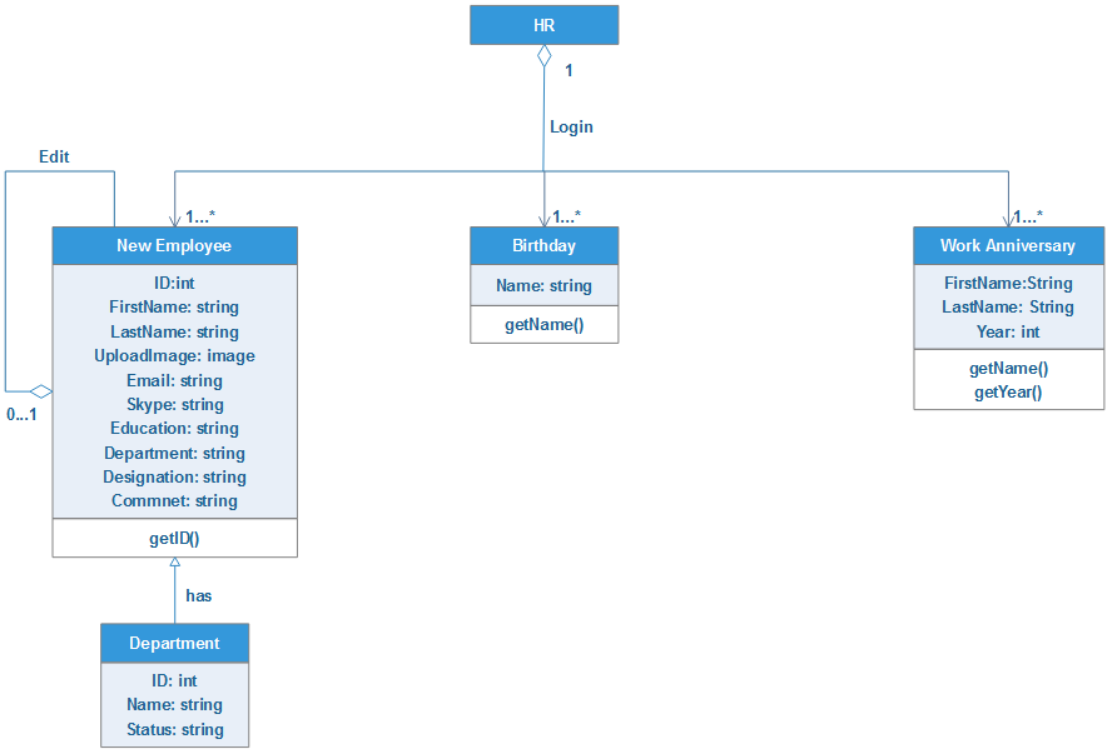


Figure 4-4 Class Diagram

Desc: A class diagram in the Unified Modeling Language (UML) is a type of static structure diagram that describes the structure of a system by showing the system's classes, their attributes, operations (or methods), and the relationships among objects. In this figure the flow of class diagram is shown.

4.5 Database Schema

Table 4-1New_Employee Table

Column Name	Data Type	Size	Constraint	Description
Id	INT	6	Primary Key	ID No.
firstname	VARCHAR	30	---	First name
lastname	VARCHAR	30	---	Last Name
image_name	VARCHAR	30	---	Image Name
image	BLOB		---	Image
email	VARCHAR	50	---	Email
skype	VARCHAR	50	---	Skype
education	VARCHAR	50	---	Education
department	VARCHAR	50	---	Department
designation	VARCHAR	50	---	Designation
message	VARCHAR	100	---	Message
reg_date	timestamp		---	Date

Table 4-2 Department Table

Column Name	Data Type	Size	Constraint	Description
Id	INT	6	Primary Key	ID No.
name	VARCHAR	30	---	Name
status	VARCHAR	30	---	Status

4.6 Data Flow Diagram

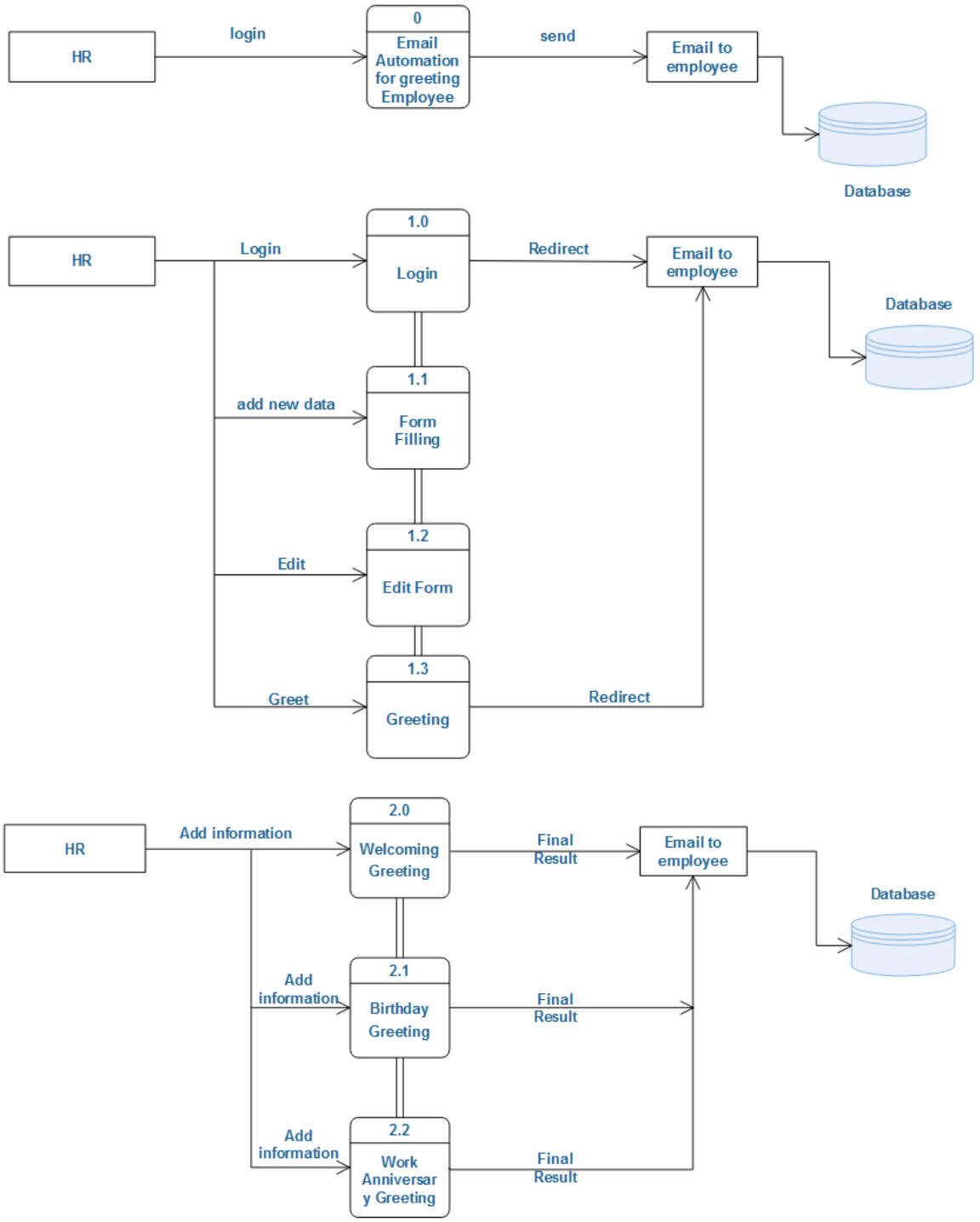


Figure 4-5 Data Flow Diagram

Desc: A data flow diagram (DFD) is a graphical representation of the "flow" of data through an information system, modelling its process aspects. Here is the flow of data in the figure.

4.7 ER Diagram

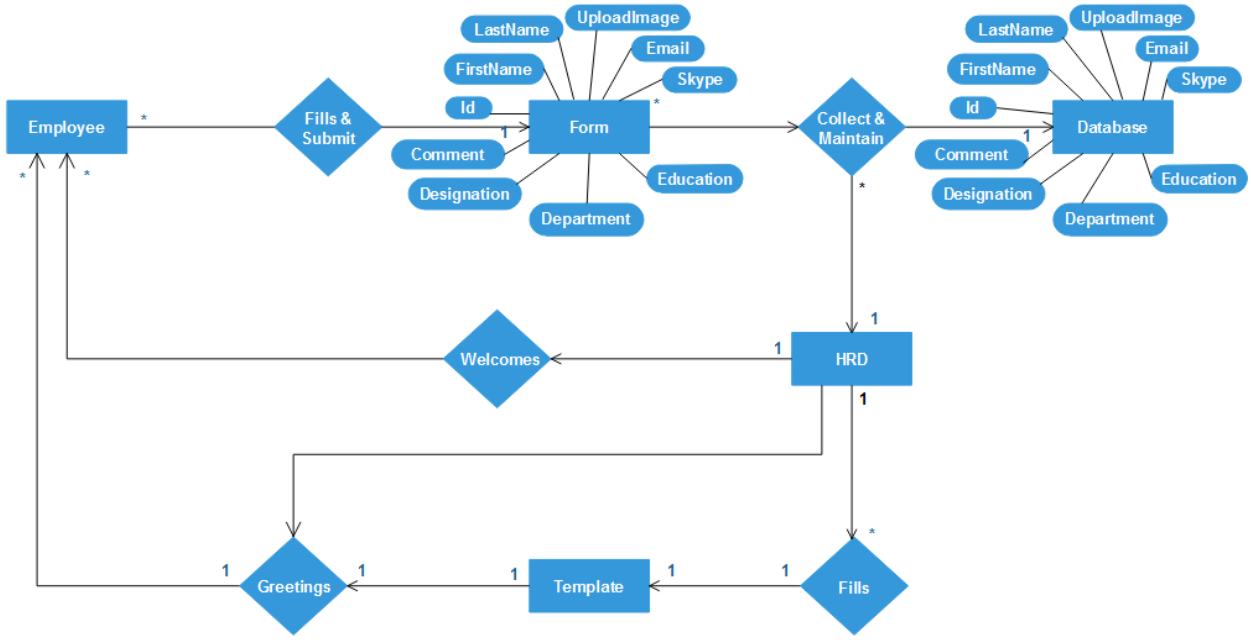


Figure 4-6 ER Diagram

Desc: An entity relationship model, also called an entity-relationship (ER) diagram, is a graphical representation of entities and their relationships to each other, typically used in computing in regard to the organization of data within databases or information systems. Here is the relationship model of the website.

CHAPTER 5 IMPLEMENTATION AND TESTING

5.1 Hardware and Software Requirements

5.1.1 Hardware Requirements:

- 7 MB RAM or more recommended
- 1366x768 or higher resolution monitor

5.2 Snapshots

➢ **Login Page**

Figure 5-1 Login Page

Desc: HR will login the details here.

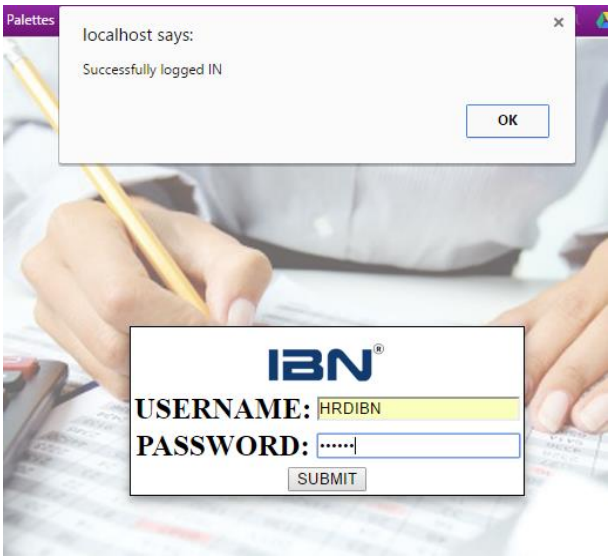


Figure 5-2 Validation of login page

Desc: Here is the validation of the page

- **Option Page**

Figure 5-3 Option Page

Desc: Here is the option page where the any of the options can be selected.

- **New-Employee**

Figure 5-4 Validation of Welcome Form

Desc: Validation of welcoming new employee form.

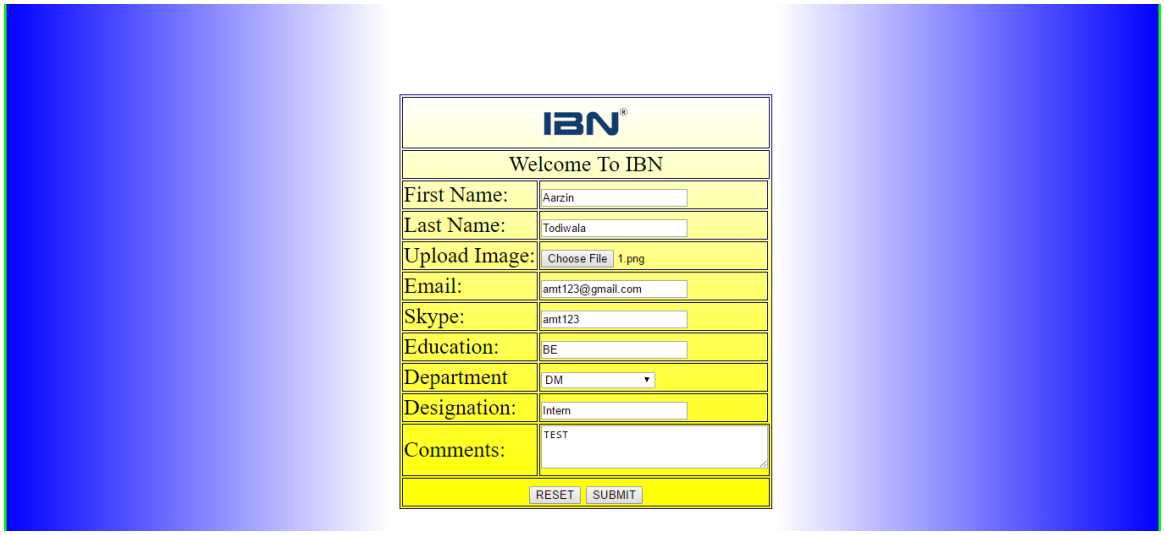


Figure 5-5 Welcoming Form

Desc: Here is the form where u can enter the detail of the new employee to be welcomed.

Figure 5-6 Loading Page

Desc: When the page takes time to load.

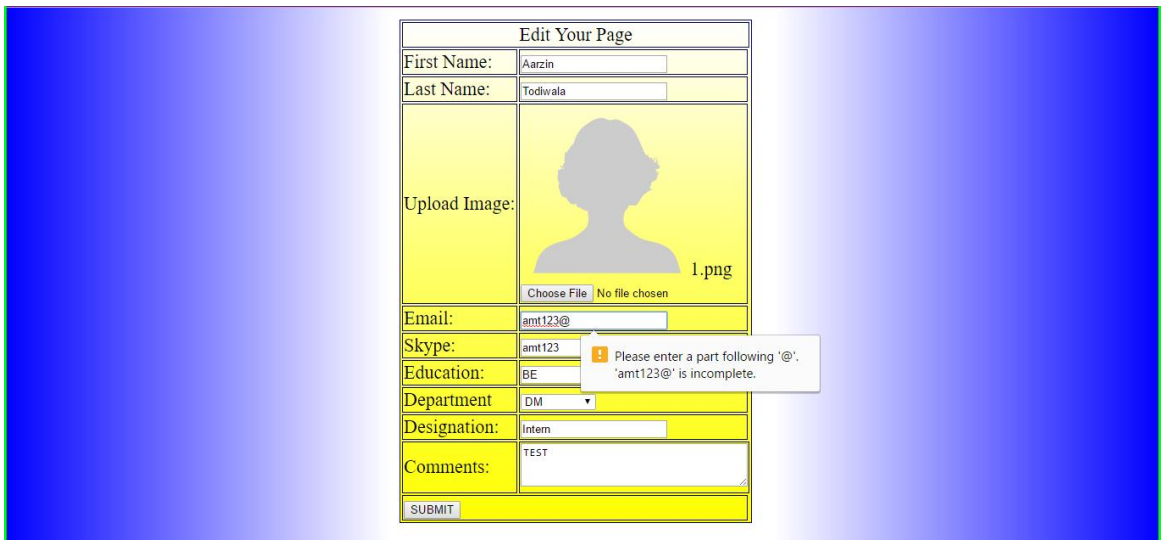


Figure 5-7 Validation of Edit Page

Desc: Validation for Edit Profile.

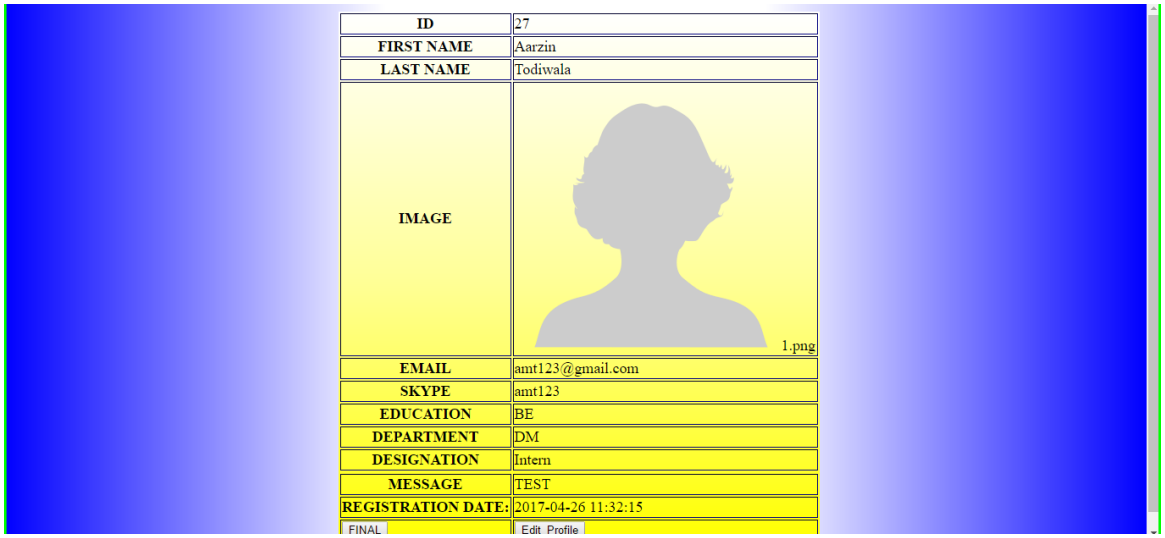


Figure 5-8 Edit Profile

Desc: Edit Profile where you can edit the profile of the employee if its wrongly written.

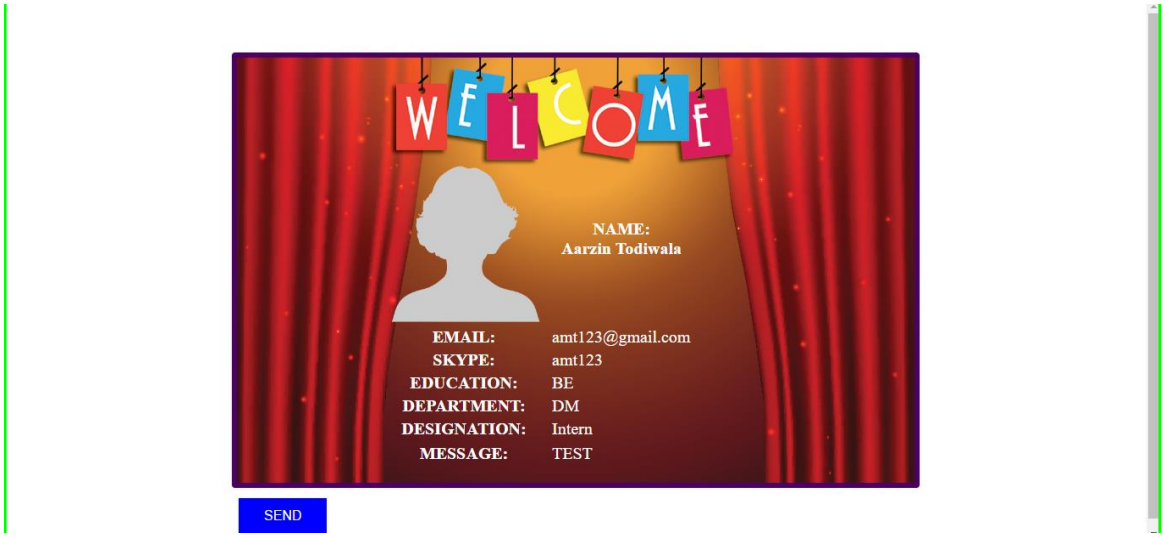


Figure 5-9 Template For Welcoming Employee

Desc: Here is the template which will be displayed when you fill the form.

- **Birthday**

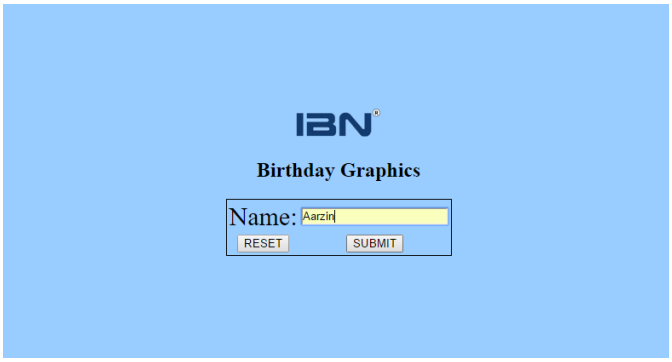


Figure 5-10 Birthday Form Page

Desc: Here is the form for Birthday graphics.

Figure 5-11 Birthday Template

Desc: Template of Birthday greeting.

- **Work Anniversary**

Figure 5-12 Work Anniversary Form

Desc: Here is the form for Work Anniversary graphics.

Figure 5-13 Work Anniversary template

Desc: Template of Work Anniversary greeting.

- **Thank You Page**

Figure 5-14 Thank You Page

Desc: Logout will logout user and home button will get back to option page.

5.3 Test Cases

TestID	Case	Test Data	ExpectedResult	ActualResult	Pass/Fail
1	Login	- Internet Connectivity - Login ID - Password	If Login ID & password is empty or invalid otherwise. Login sucessfully	Login ID & password is empty or invalid.	Pass
2	New-Employee Form	- First Name - Last Name - Upload Image - Email - Skype - Education - Department - Designation - Comment	If all the data are empty or invalid otherwise all valid	All the data are empty or invalid.	Pass
3	Edit-Page	- First Name - Last Name - Upload Image - Email - Skype - Education - Department - Designation - Comment	All attribute can be modified or the data should be represented as it is.	All attribute can be modified or the data should be represented as it is.	Pass
4	Email	Email Id	If Email Id is valid &Authorized then the email will be sent.	Email Id is valid & Authorized and then the	Pass

				email will be sent.	
5	Logout	Select Logout	User should Logout of the website and redirected to Login page.	User get Logout of the website and redirected to Login page.	Pass
6	Home	Select Home	Application should be redirected to option page.	Application redirects to option page.	Pass

CHAPTER 6 CONCLUSION AND FUTURE SCOPE

This project has concluded that the work of HR is been minimized and will optimized graphics designer's work. In Project scope, I have learnt specific prject goals deliverable, task, cost within deadline. Futuristicly, we can add more random templates for birthday and work anniversary. Even we can add more data into database for more use.

REFERENCES

Web references

[1] "PHP, HTML5, jQuery, AngularJS tutorials", https://www.w3schools.com/ .

[2] "Free Images", http://www.freepik.com/.