ATMIYAUNIVERSITY

RAJKOT

A Report On

WebCy - ERP

Under subject of

PROJECT

B. TECH Semester – VII

(Computer Engineering)

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Academic Year

(2022)

CANDIDATE'S DECLARATION

We hereby declare that the work presented in this project entitled "**WebCy"** submitted towards completion of project in **7th Semester** of B.Tech. (Computer Engineering) is an authentic record of our original work carried out under the guidance of "**Prof. Nirali Borad".**

We have not submitted the matter embodied in this project for the award of any other degree.

Semester: 7th

Place: Rajkot

Signature:

Singh Nilam (201002024)

Mobhera Dipti (201002019)

ATMIYA

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CERTIFICATE

Date:

This is to certify that the "**WebCy**" has been carried out by **Singh Nilam Nagendrabhai** under my guidance in fulfillment of the subject Project in COMPUTER ENGINEERING (7th Semester) of Atmiya University, Rajkot during the academic year 2022.

Prof. Nirali Borad

(Project Guide)

Prof. Tosal M. Bhalodia

(Head of the Department)

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CERTIFICATE

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This is to certify that the "**WebCy**" has been carried out by **Mobhera Dipti Jayantibhai** under my guidance in fulfillment of the subject Project in COMPUTER ENGINEERING (7th Semester) of Atmiya University, Rajkot during the academic year 2022.

Prof. Nirali Borad

(Project Guide)

Prof.Tosal M.Bhalodia

(Head of the Department)

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We even thank and appreciate to our colleague in developing the project and people who have willingly helped us out with their abilities.

Singh Nilam (201002024)

Mobhera Dipti (201002019)

ABSTRACT

WebCy is a PHP based web application that manages all the projects and the employees of a web development company. It is developed in Codeigniter Framework.

It can be used by web development company that want to maintain their web projects, domains, quotation, collections and employee attendance, salary etc. Employees can add their attendance after reaching at company by login to this system. They can request for their Leave and see their salary is done or not. Employee can also add their worksheet that shown to admin that how much work employee had done. It has a BDE (Business Development Executive) employee who adds new projects, takes follow back via calling or meeting.

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INTRODUCTION

1.1 INTRODUCTION

WebCy is a PHP based web application, that manages Web Development Company's projects and their employee details. It is developed in Codeigniter Framework.

It can be used by web development company that want to maintain their web projects, domains, collections, quotation and employee attendance, salary etc.

Employees can add their attendance after reaching at company by login to this system. They can take their Leave and see their salary is done or not. Employee can also add their worksheet that shown to admin that how much work he had done.

It has a BDE employee who is responsible for adding new projects and taking follow backs. He takes all the feedbacks and any changes of the project from the customer.

1.2. PURPOSE

WebCy is used to maintain all the project and employees. It's purpose is to reduce the manual work and time required to maintain all the details. In this quotation for a web development will automatically generated so it makes this system simple also. It runs on browser over internet. This system is more reliable as all the details are maintained on the server or database which is more safer and easy to find the data.

1.3. SCOPE

This system is only used on the internet by any web development companies and their employees. It requires a browser with latest version to run it without any fault.

CHAPTER 2

SOFTWARE REQUIREMENTS SPECIFICATION

2.1 Hardware Requirements

Table 2.1.1 Hardware Requirements

Hardware	Minimum Requirement
RAM	2GB
Hard Disk Space	5 GB of available hard disk space
Processor (CPU) Speed	1.3 GHz processor
Graphics Card	Video graphics adapter that can support 256 colors and a resolution of 800 by 600 dpi
Network Adapter	A network adapter from the Microsoft Windows Server 2003 Hardware Compatibility List
	For security Antivirus is recommended.

2.2 Software Requirements

Table 2.2.1 Software Requirements

Software	Minimum Requirement
Operating System	Windows 2003 Server OR Linux Server Edition OR Unix Server Edition
Web development environment	Wamp (Windows Platform) OR Xampp (Unix Platform) Lamp (Linux Platform)

2.3 Client-side Requirements

Table 2.3.1 Client-side Requirements

Software	Minimum Requirement
Operating System	Windows 2003 Server OR Linux Server Edition OR Unix Server Edition
Web development environment	Wamp (Windows Platform) OR Xampp (Unix Platform) Lamp (Linux Platform)

CHAPTER 3
System Analysis

3.1 Problems and weaknesses of current system

- Inconsistency in data entry and generates errors
- Entry of false information
- Duplication of data entry
- Lake of security
- Very hard for maintaining records for long time

3.2 Requirement of Current System

- Easily Details be added, modified or deleted
- Searching will be more fast
- Track employee's attendance timely without any hurdles
- Track Project details with different status
- Less manual work
- Generate Attendance report in pdf or excel file
- Automatically generate quotation based on given project details
- Highly Optimized and Efficient
- Employees can add their attendance by only one click

CHAPTER 4
DESIGN & PLANNING

4.1 Software Development Life Cycle Model

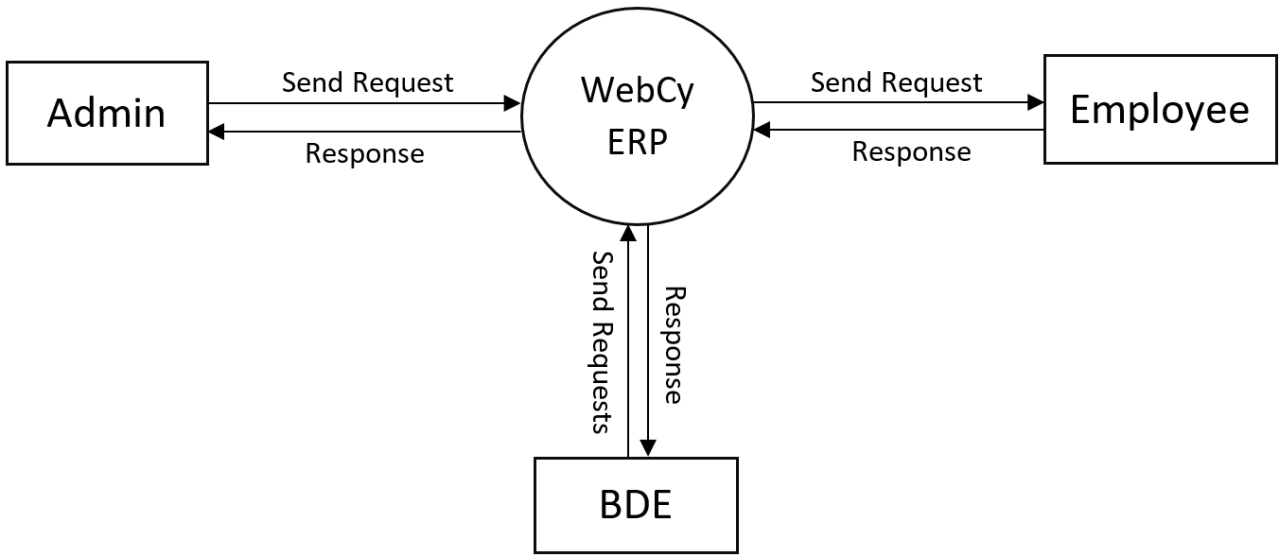
4.1.1 Iterative Waterfall Model

❖ **The Iterative waterfall model was selected as the SDLC model due to the following reasons:**

- Requirements were very well documented, clear and fixed.
- Technology was adequately understood.
- Simple and easy to understand and use.
- Easy to manage due to the rigidity of the model.
- There were no ambiguous requirements.
- Each phase has specific deliverables and a review process.
- Clearly defined stages.
- Well understood milestones easy to arrange tasks.

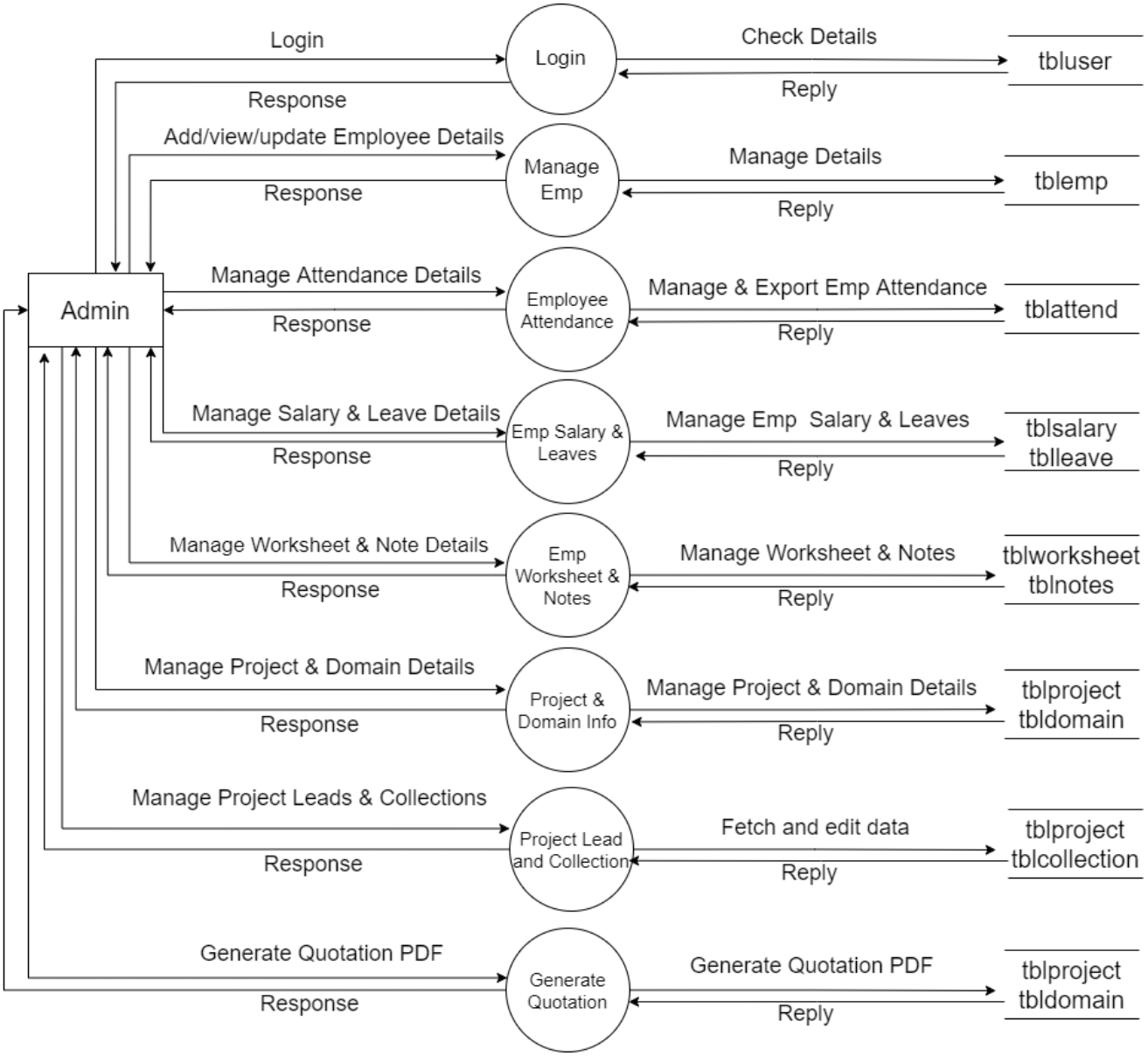
4.2 Data Flow Diagram

4.2.1 DFD - Level 0

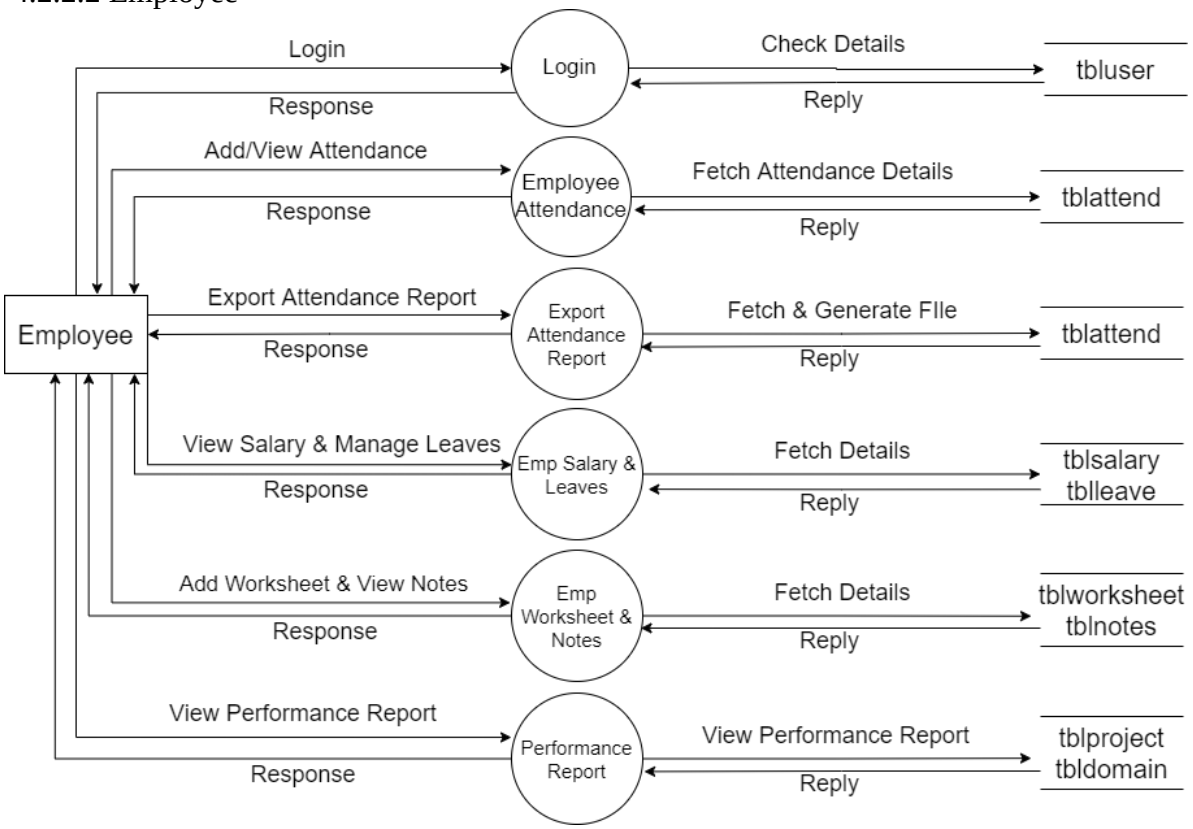


4.2.2 DFD - Level 1

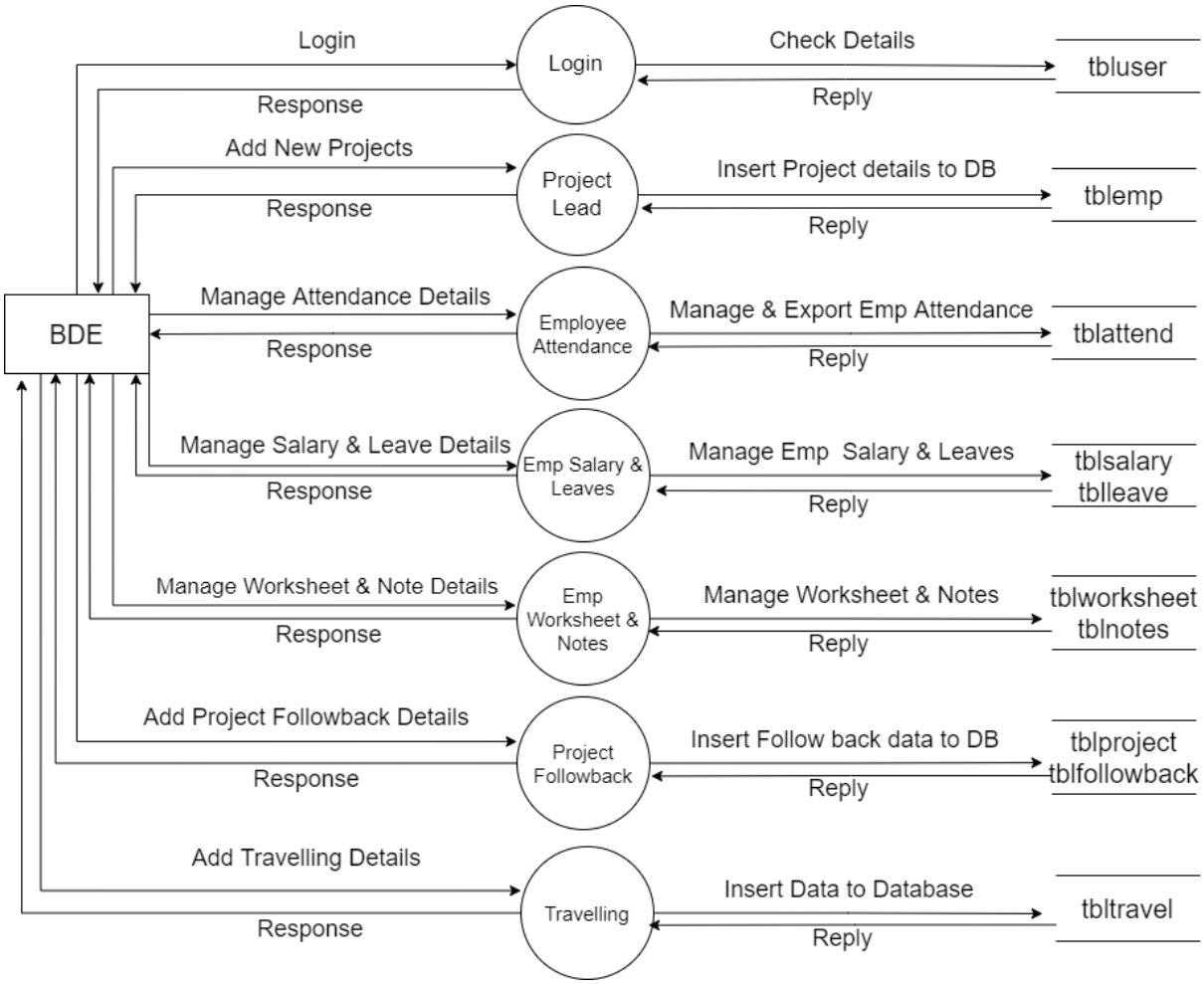
4.2.2.1 Admin



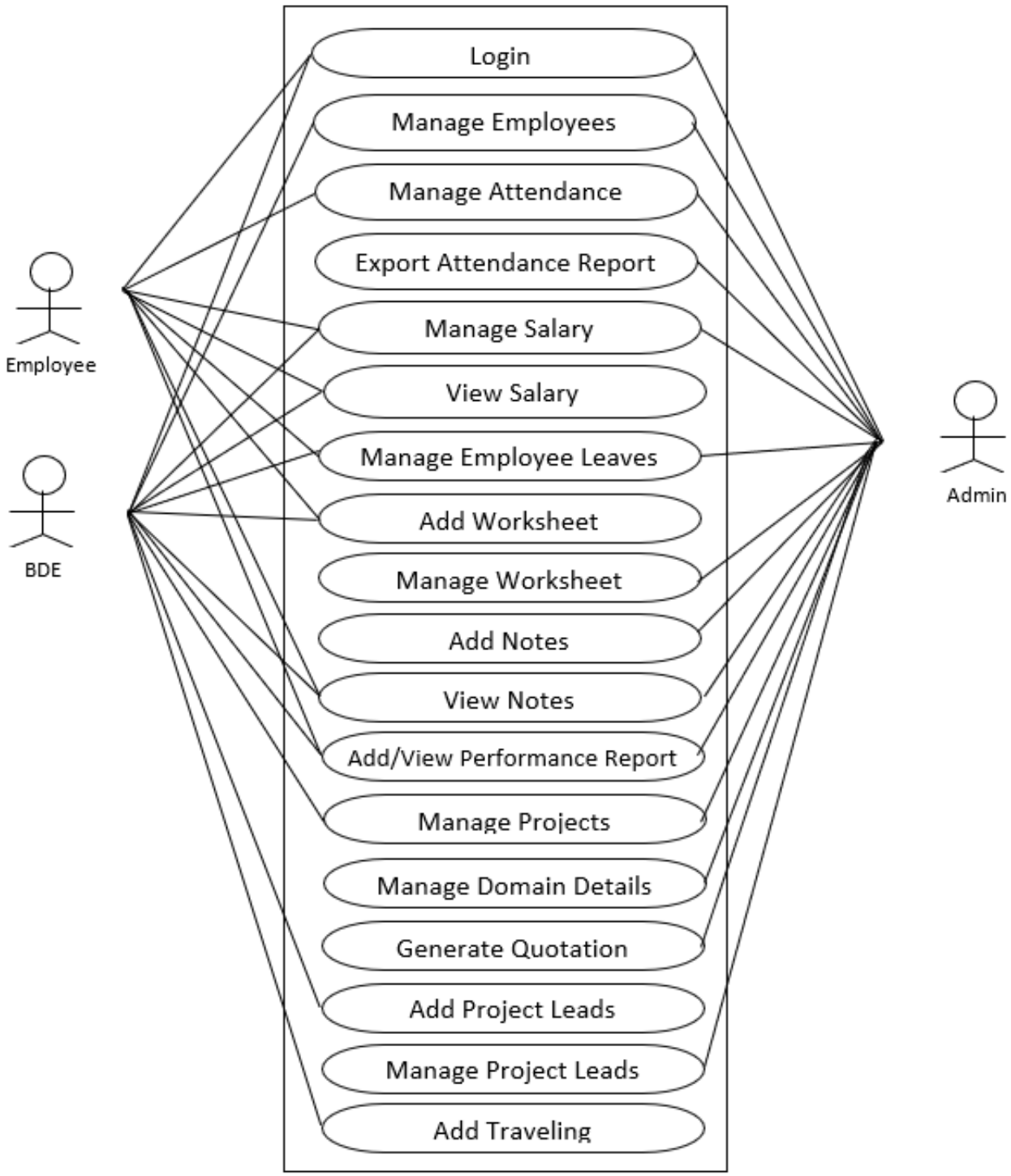
4.2.2.2 Employee



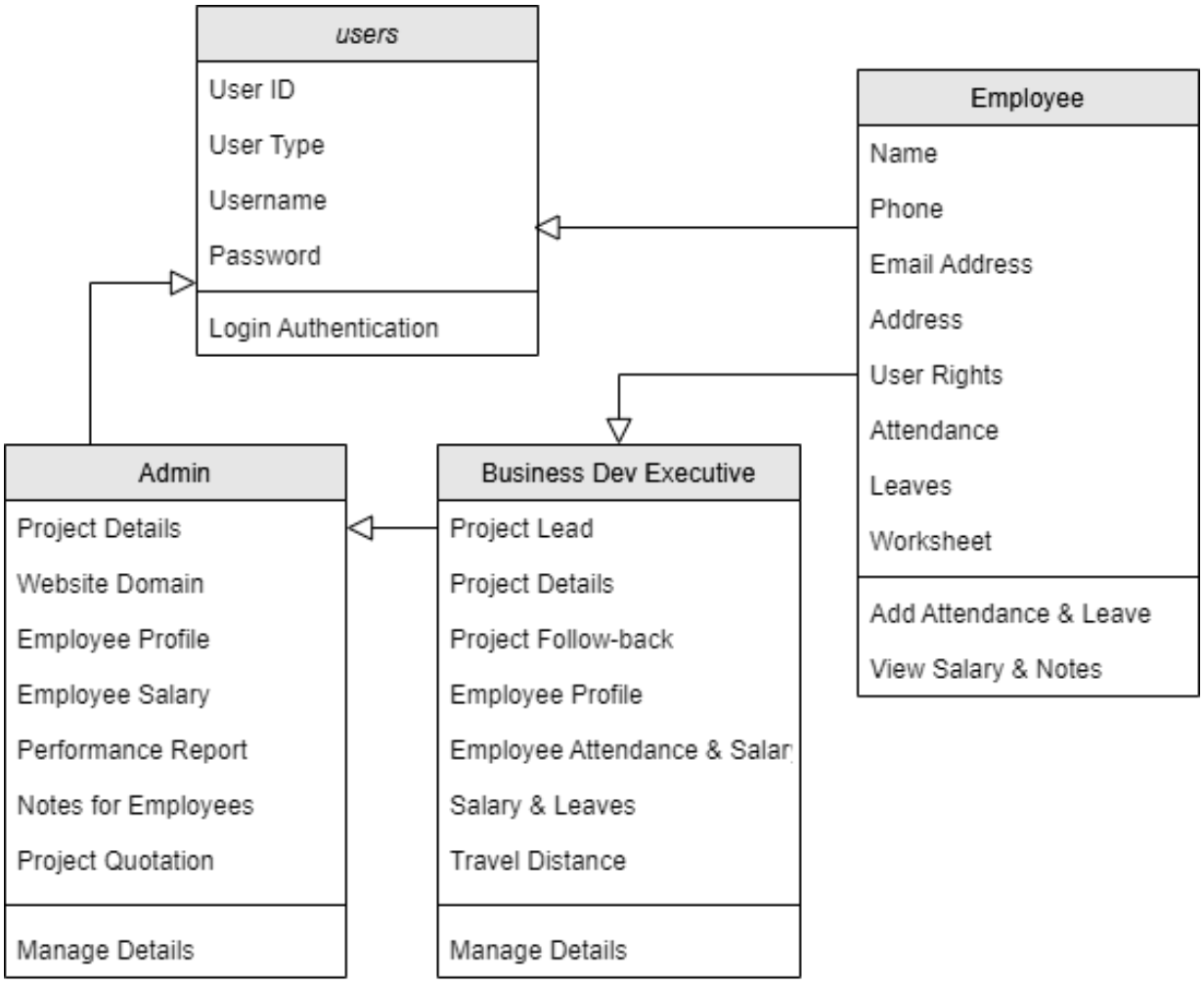
4.2.2.2 Business Development Executive



4.3 Use Case Diagram

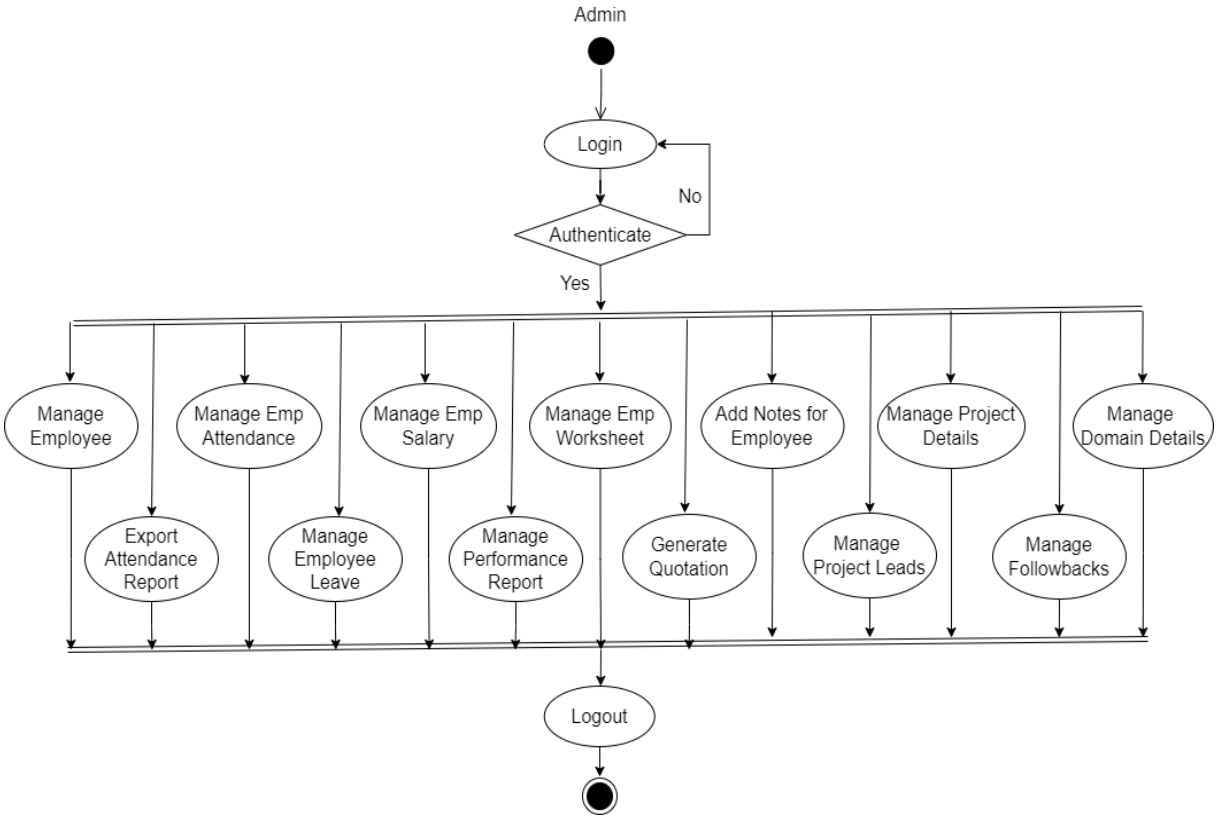


4.4 Class Diagram

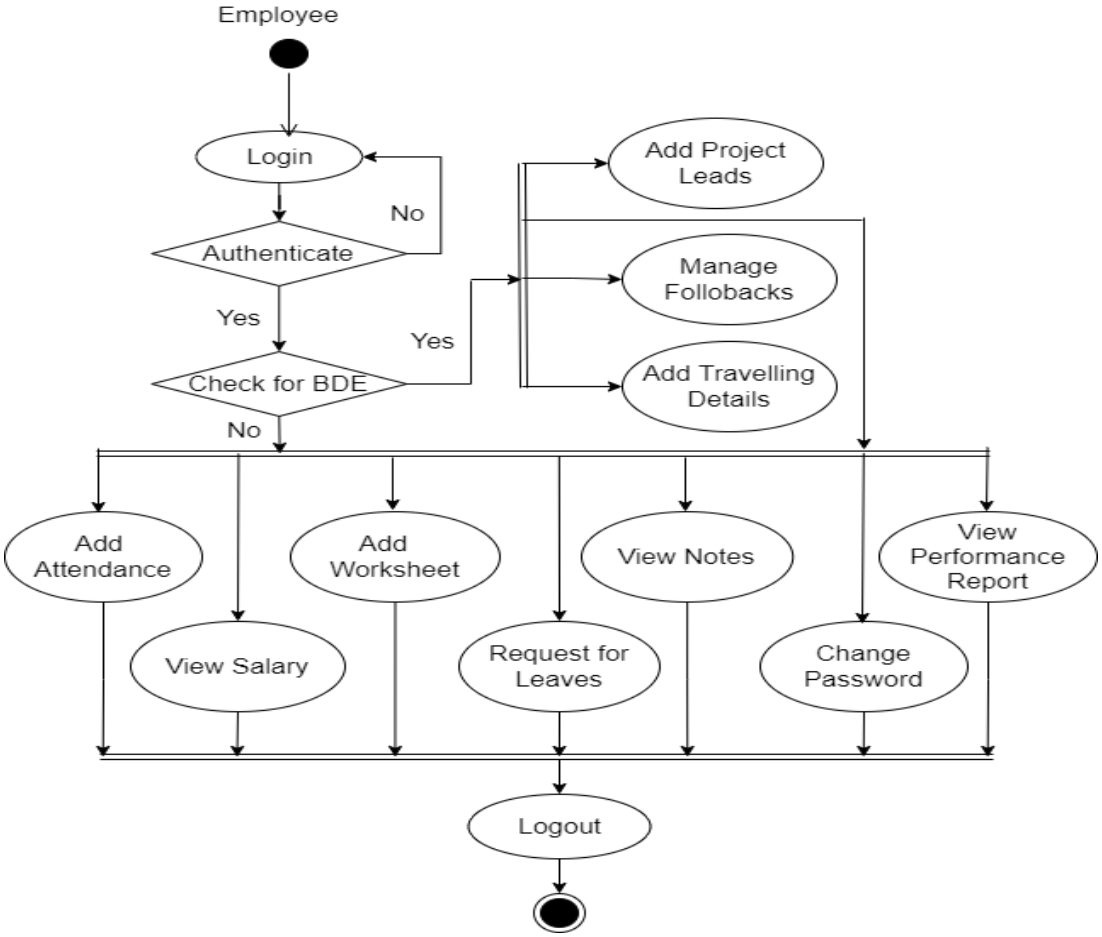


4.5 Activity Diagram

4.5.1 Admin



4.5.2 Employee



4.6 Input /Output Interface

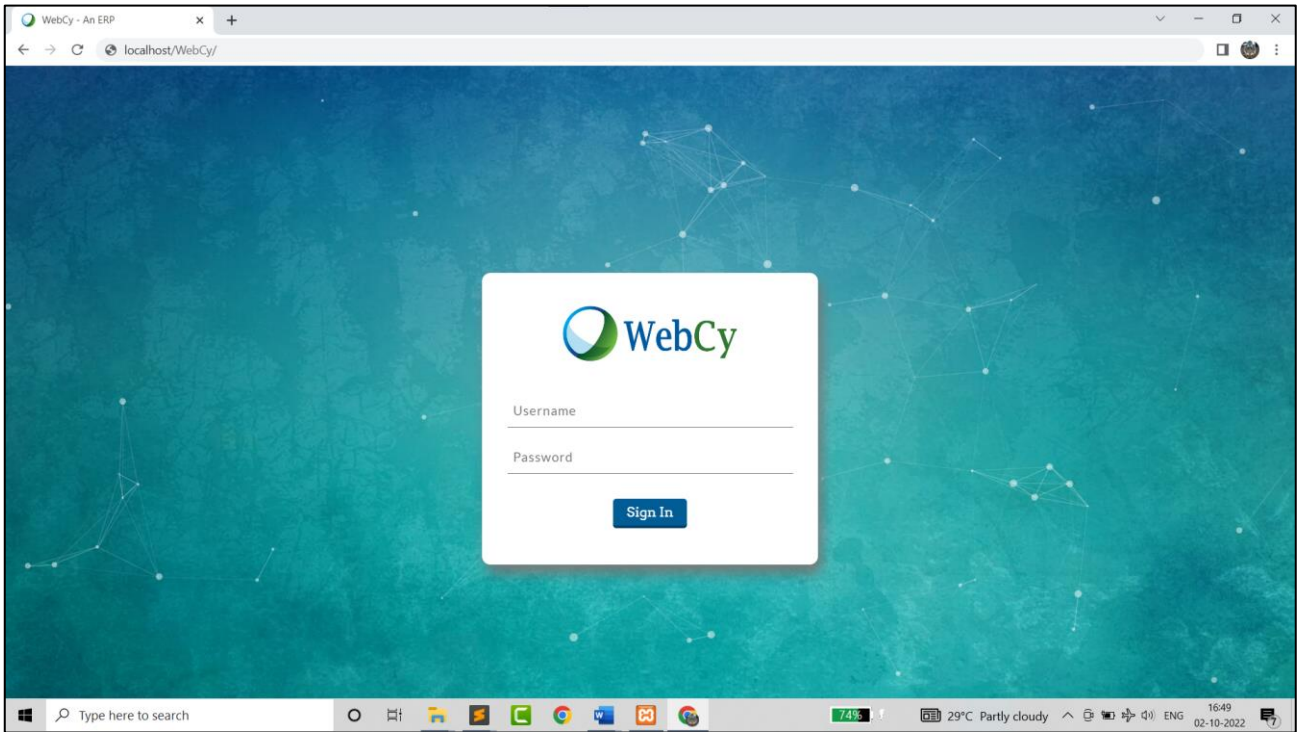


Fig.4.6.1 Login Page

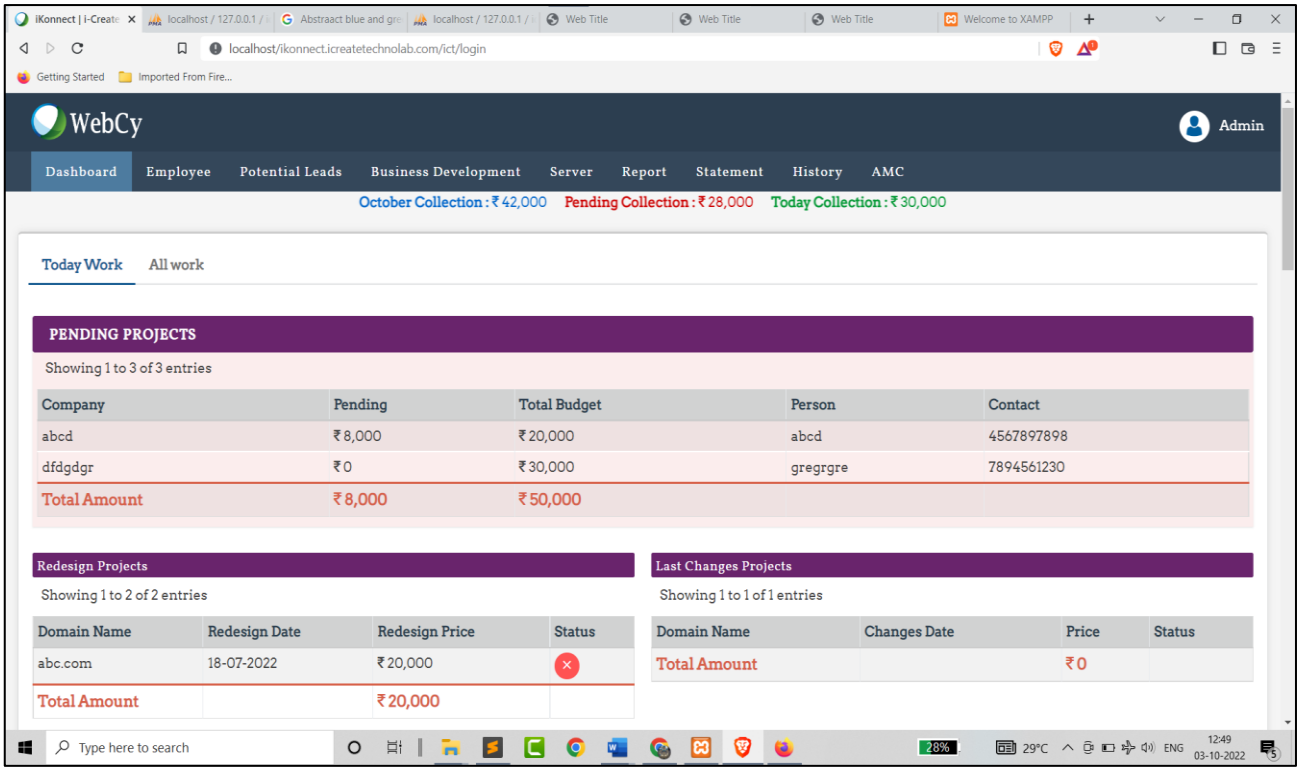


Fig.4.6.2 Admin Dashboard Page

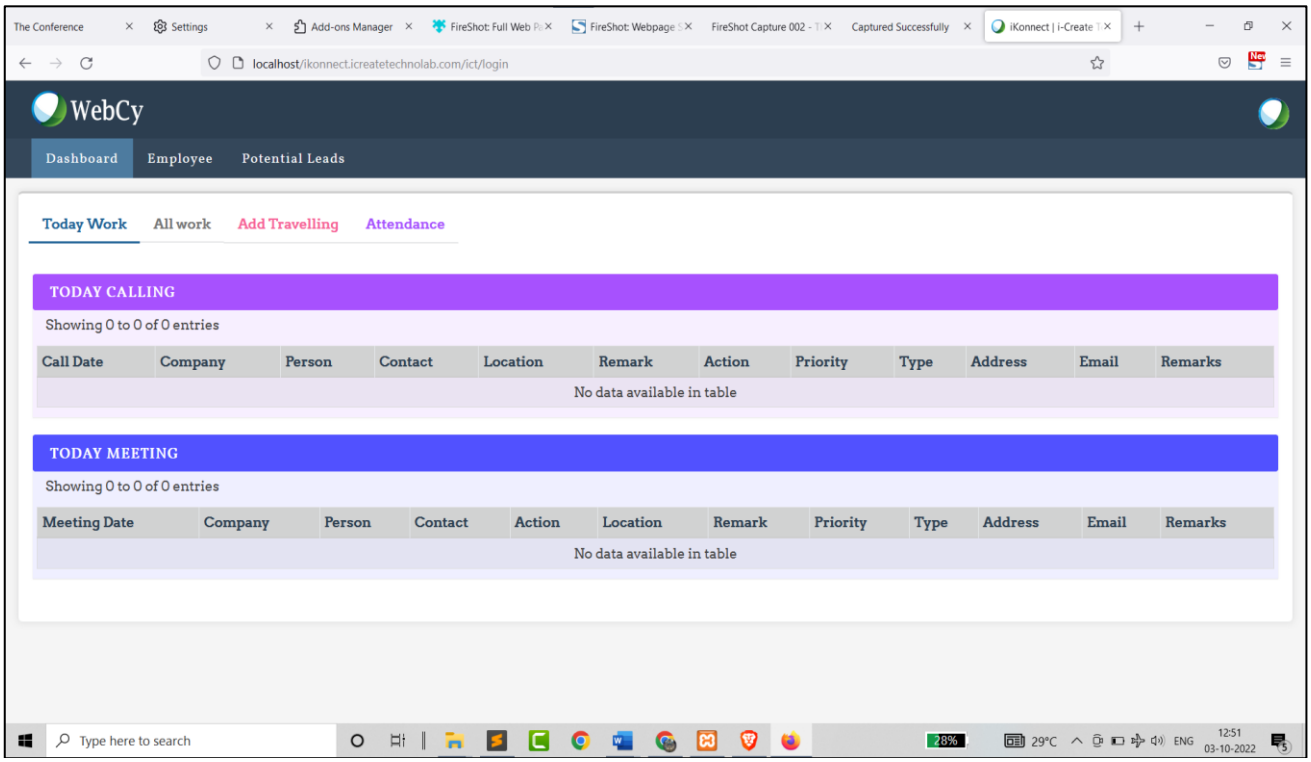


Fig.4.6.3 BDE Dashboard Page

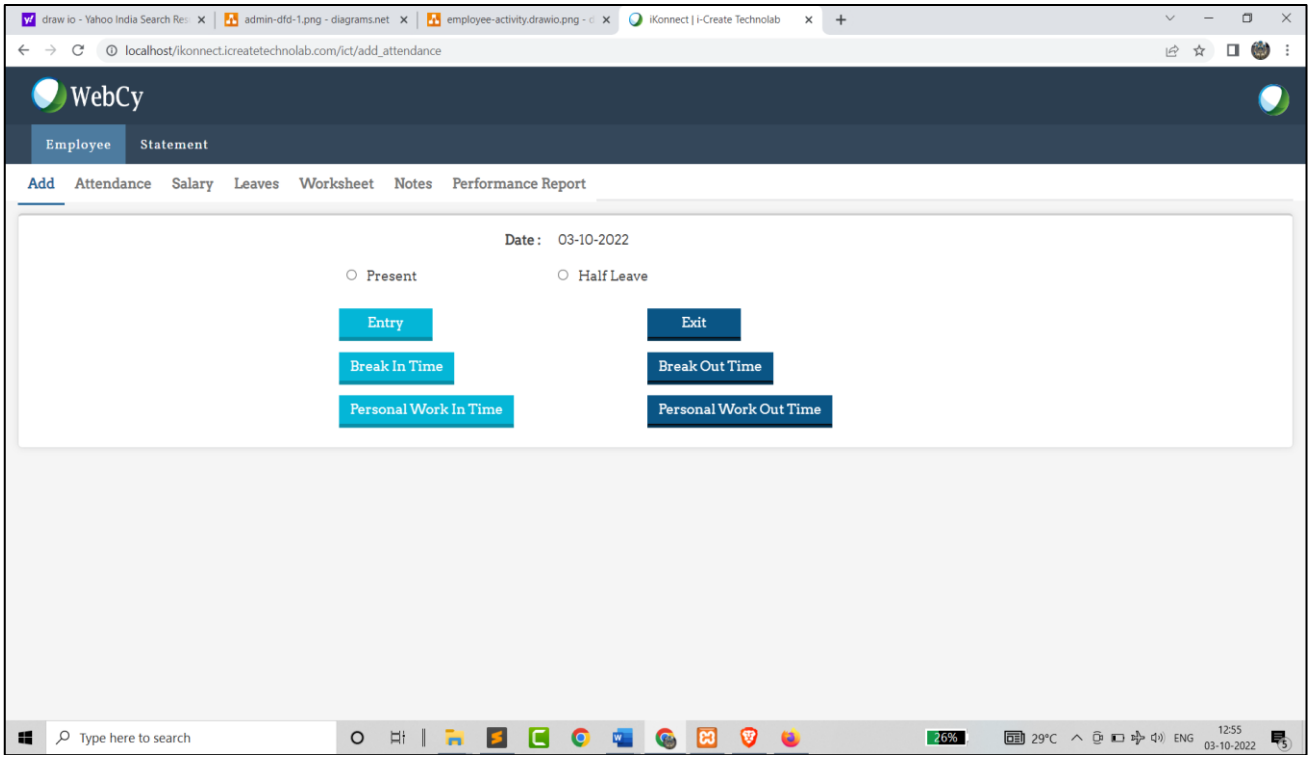


Fig.4.6.4 Employee Attendance Page

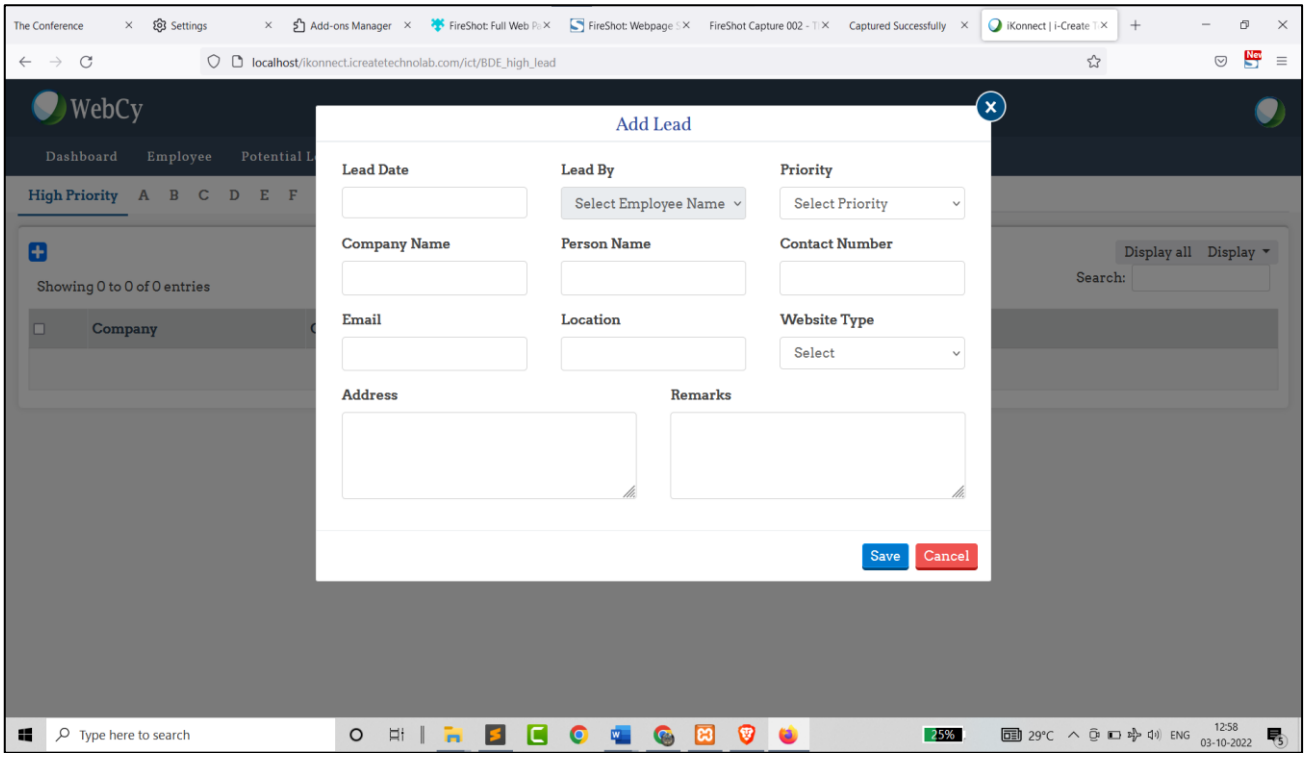


Fig.4.6.5 BDE Add Leads Page

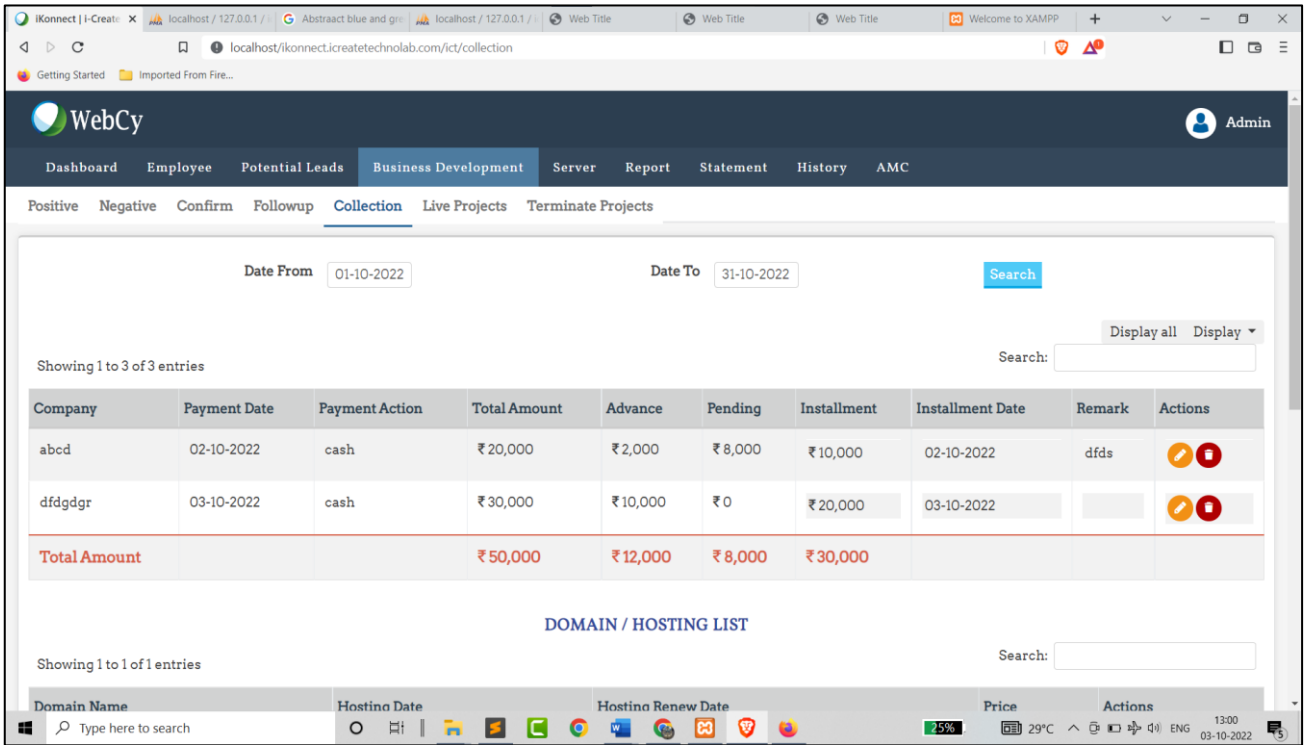


Fig.4.6.5 Admin Collections Page

CHAPTER 5
IMPLEMENTATION DETAILS

In this Section we will do Analysis of Technologies to use for implementing the project.

5.1 FRONT END

5.1.1 HTML

Hypertext Markup Language (HTML) is the standard markup language for documents designed to be displayed in a web browser. It can be assisted by technologies such as Cascading Style Sheets (CSS) and scripting languages such as JavaScript. Web browsers receive HTML documents from a web server or from local storage and render the documents into multimedia web pages. HTML describes the structure of a web page semantically and originally included cues for the appearance of the document.

5.1.2 CSS

Cascading Style Sheets (CSS) is a style sheet language used for describing the presentation of a document written in a markup language like HTML.CSS is a cornerstone technology of the World Wide Web, alongside HTML and JavaScript.CSS is designed to enable the separation of presentation and content, including layout, colors, and fonts. This separation can improve content accessibility, provide more flexibility and control in the specification of presentation characteristics, enable multiple web pages to share formatting by specifying the relevant CSS in a separate .css file, and reduce complexity and repetition in the structural content.

5.2 BACK END

5.2.1 PHP

PHP is a server side scripting language that is used to develop Static websites or Dynamic websites or Web applications. PHP stands for Hypertext Pre-processor, that earlier stood for Personal Home Pages. PHP scripts can only be interpreted on a server that has PHP installed. The client computers accessing the PHP scripts require a web browser only. A PHP file contains PHP tags and ends with the extension ".php". The thing that differentiates PHP with client-side language like HTML is, PHP codes are executed on the server whereas HTML codes are directly rendered on the browser.

5.2.2 MySQL

MySQL is an open source relational database management system (RDBMS) based on Structured Query Language (SQL). It is one part of the very popular LAMP platform consisting of Linux, Apache, My SQL, and PHP. Currently My SQL is owned by Oracle. My SQL database is available on most important OS platforms. It runs on BSD Unix, Linux, Windows, or Mac OS. Wikipedia and YouTube use My SQL. These sites manage millions of queries each day. My SQL comes in two versions: My SQL server system and My SQL embedded system.

5.3 CODING STANDARDS

Normally, good software development organization requires their programmers to adhere to some well defined and standard style of coding called coding standard.

5.3.1 Variable Standards:

Variable names should have a meaningful unique name that defines its work. Variable names should be start with _ or alphabet. It must not be start with a digit or any special characters.

5.3.2 Comment Standards:

The comment should describe what is happening, how it is being done, what parameters mean, which global are used and which are modified, and any registration or bugs. The standards I have followed are:

- Every script should begin with a comment block, which describes the scripts purpose; any argument used (if applicable), and return values (if applicable), inputs-outputs, and name of script.
- Comment may also be used in the body of the script to explain individual sections or lines of codes.
- It is also used to describe variable definition or declarations.
- Inline comments should be made with the. //. Comment style and should be indented at the same level as the code described.
- For multiple line comments we write between /* ….*/.

5.3.1 Program/Module Specification

- System GUI must be as simple and user friendly as anyone can use it. At front side we implemented login form to access the system.
- A Session is maintained throughout the system when a particular user enters into the system. The Session is regularly checked whenever it is required.
- Proper validation is placed as and when it is required.

CHAPTER 6
TESTING

6.1 Testing Strategy

A strategy for software testing integrates software test case design method into a well-planned series of steps that result in the successful construction of the software. The strategy provides the roadmap that describes the steps to be conducted as a part of testing, then these steps are planned andthen undertaken, and how much effort, time and resource will be required.

6.2 Testing Method

6.2.1 Unit Testing

The unit testing is meant for testing smallest unit of software. There are two approaches namely bottom-up and top-down. In bottom-up approach the last module is tested and then moving towards the first module while top-down approach reverses the action. In present work we opt for the first one.

6.2.2 Validation Testing

After the integration testing software is completely assembled as a package, interfacing error have been uncovered and corrected, and then validation testing may begin.Validation can be defined in many ways but a simple definition is what a validation succeeds when software functions in a manner that can be reasonably accepted by the user.

6.2.3. Integration Testing

The integration testing is meant to test all the modules simultaneously because it is possible that all the modules may function correctly when tested individually. But they may not work altogether andmay lead to unexpected outcome.

CHAPTER 7
LIMITATIONS & FUTURE ENHANCEMENT

7.1 Limitations

Though we tried our best in developing this system but as limitations are mere parts of any system so are of our system.

Some limitations of WebCy are:-

- Biometric Attendance feature is not available at this version
- User Authentication is also not too secure compare to authentication by SMS
- Should send mail about project details with quotation to customers
- This system should have to include a chatbot for communication between each employees and admin (Manager)
- There's not provided any feature for customer feedbacks

7.2 Future Enhancement

- Automatically generate project bill
- Automatically Salary count based on Attendance
- Biometric integration to take attendance rapidly
- Generate Offer letter, Training letter and Experience letter automatically
- User authentication with SMS
- Customer Feedback

CHAPTER 8
CONCLUSION

WebCy is a secure, simple, reliable and user-friendly Web Application. This system will help a web development company to manage their all projects and employees easily. This system will help in reducing the labor and time for managing all the details. It has a Automatic Quotation Generation Module that help to generate Quote of a project for the customers which reduce more time of company.

It will be very helpful for web development companies if it will be enhanced more and reducing the limitations of it buy implementing more modules and by reducing its risks. This system is used for only maintaining the employees and project details only but later on it can be used for automatic attendance, project collection counting, generating bills, quotes, employee's training letter, offer letter, experience letter and resignation letter.

CHAPTER 9
REFERENCES

Websites:

- www.bootstrap.com
- www.quora.com
- www.geekforgeeks.org
- www.wikipedia.org

Books:

- HTML & CSS (Publication: Head First)
- PHP (Publication: Head First)
- Software Engineering (By: Roger Pressman)