UDHNA CITIZEN COMMERCE COLLEGE & S.P.B. COLLEGE OF BUSINESS ADMINISTRATION & SMT. DIWALIBEN HARJIBHAI GONDALIA COLLEGE OF BCA AND I.T.

Bachelor of Computer Applications
(BCA) Programme

Minor Project Report

Partial Fulfillment of

BCA Sem.-V

A.Y. 2023-24

Project Title: PAYROLL MANAGEMENT SYSTEM

Submitted By:

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	202346002	*Jyoti Rajkumar Dwivedi*
	202346030	*Rupakumari Upendra Chauhan*

Project Guided by:

- *Prof. Dr. Manish Kayasth*
- *Prof. Swapnil Patil*

Acknowledgement

We would want to convey my heartfelt gratitude to Prof. Dr. Manish Kayasth and Prof. Swapnil Patil, our mentor, for their invaluable advice and assistance in completing my project. They were there to assist us every step of the way, and his motivation is what enabled us to accomplish my task effectively. We would also like to thank all the other supporting personnel who assisted me by supplying the equipment that was essential and vital, without which we would not have been able to perform efficiently on this project.

We would also want to thank the VNSGU for accepting my project in our desired field of expertise. We had also to thank my friends and parents for their support and encouragement as we worked on this project.

Date: ……………..

INDEX

Payroll-Central

Payroll Management System

1. Introduction:

1.1. Project description:

A payroll management system is a software application that automates the process of calculating and paying employee salaries. It typically involves keeping track of employee hours worked, calculating taxes and deductions, and generating pay checks. Payroll management systems can save businesses time and money by eliminating the need for manual calculations and processing.

This project will develop a payroll management system for a small business. The system will be designed to be easy to use and affordable. It will also be scalable so that it can be used by businesses of all sizes.

1.2. Project Profile:

- Project Title: Payroll-Central
- Project Description: It is a payroll management system web application created in ReactJS and Nodejs.
- Project Duration: 2 months
- Project Team Members: Kishore Sunchu, Jyoti Dwivedi, Rupa Chauhan
- Project Status: completed

2. Environment Description:

2.1. Hardware and Software Requirements:

Follows are the Hardware requirements of the project:

- Processor: Intel Core i5
- SSD: 512GB
- RAM: 8GB

Follows are the Software requirements of the project:

- Windows 7 or higher
- MongoDBCompass
- NodeJs
- Visual Studio Code
- Google Crome Developer Options

2.2. Technologies Used:

The Technology which are used in the project is as follows:

- **Fronted:**
  - ReactJS
  - Tailwind CSS
  - Material UI

- **Backend:**
  - NodeJs
  - Express
  - MongoDB
  - Mongoose

3. System Analysis and Planning:

3.1. Existing System and its Drawbacks:

Follows are the existing system for payroll management systems:

- greytHR
- Keke HR
- HROne
- Workday HCM

Drawbacks of above system:

- High cost: The cost of implementing and maintaining can be high, especially for small business
- Inflexibility: Traditional payroll system are often inflexibility and can be difficult to adapt changes in employee information or company policies.
- Difficult to scale: Manual payroll system can be difficult to scale as a company grows.

3.2. Feasibility Study:

- Technical feasibility: Is the system technically feasible to develop and implement?
- Financial feasibility: Can organization afford to develop and implement the system?
- Market feasibility: Is there a demand for the system in the marketplace?
- Operational feasibility: Can the organization effectively use the system?

3.3. Requirement Gathering and Analysis:

- Payroll compliance: The system must be able to calculate and deduct all applicable taxes.
- Expense management: The system must be able to track and manage employee expense.
- Dashboard and reporting: The system must provide a dashboard with real-time data on payroll, expenses, and other financial information.

4. Proposed System:

4.1. Scope:

- **Employee Data:** The system should be able to store and manage employee data such as name, address, contact information, job title, salary and deductions.
- **Payroll Calculations:** The system should be able to calculate employee pay accurately, taking into account all relevant factors such as hours worked, overtime, bonuses, and deductions.
- **Payslip generation:** The system should be able to generate payslip for each employee, showing their gross pay, deductions, and net pay.
- **Security:** the system should be secure to protect employee data analytics to help managers track payroll costs, identify trends, and make informed decisions.
- **Self-Service:** The ability for employees to access their pay information and make changes to their personal details.
- **Integration with other systems:** The system can be integrated with other HR systems, such as timekeeping and benefits administration systems.

4.2. Project modules:

The system comprises of 2 major modules with their sub-modules as follows:

I. Admin
II. Employee

4.3. Module Vise objectives/functionalities Constraints:

Admin:

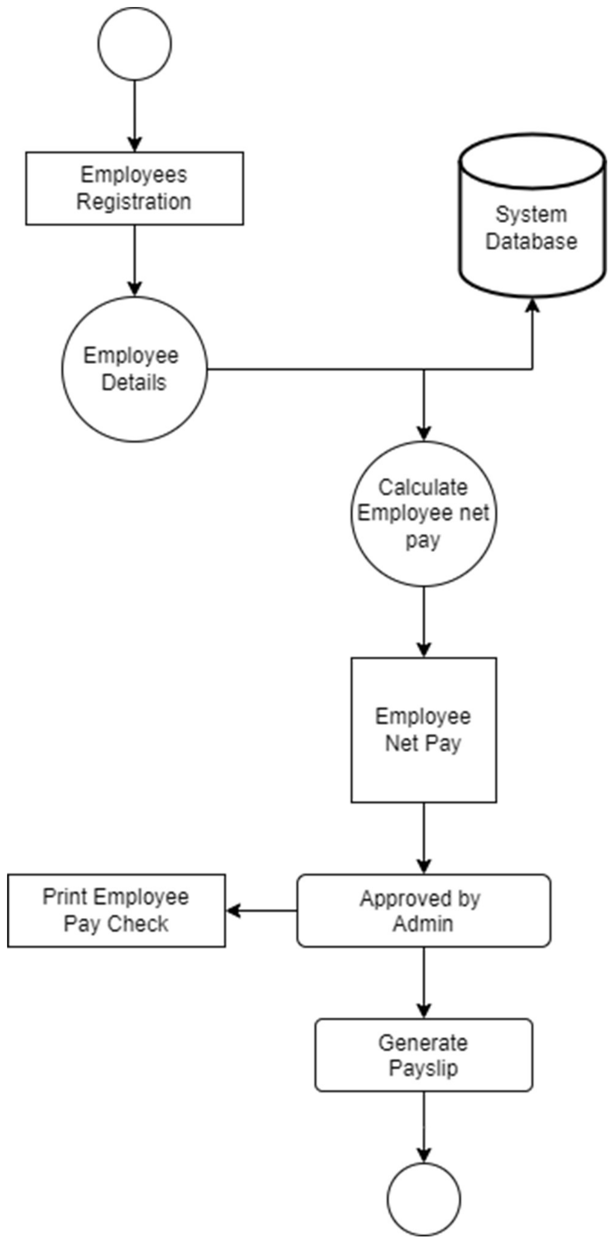
- Login: Admin can login into system.
- Add Employee: Admin can add employee.
- Employee Details: Admin can view all employee details.
- Change Details: Admin can change the details of employees.
- Change Status: Admin can change the status of the employee.
- Generate Payroll: Admin can generate payslip for employees
- Logout: Admin can logout.

Employee:

- Login: Employee can login in his profile.
- Profile: Employee view his profile details.
- Change Details: Employee can change his limited details.
- Generate Payroll: Employee can generate payslip for themselves.
- Log out: Employee can logout.

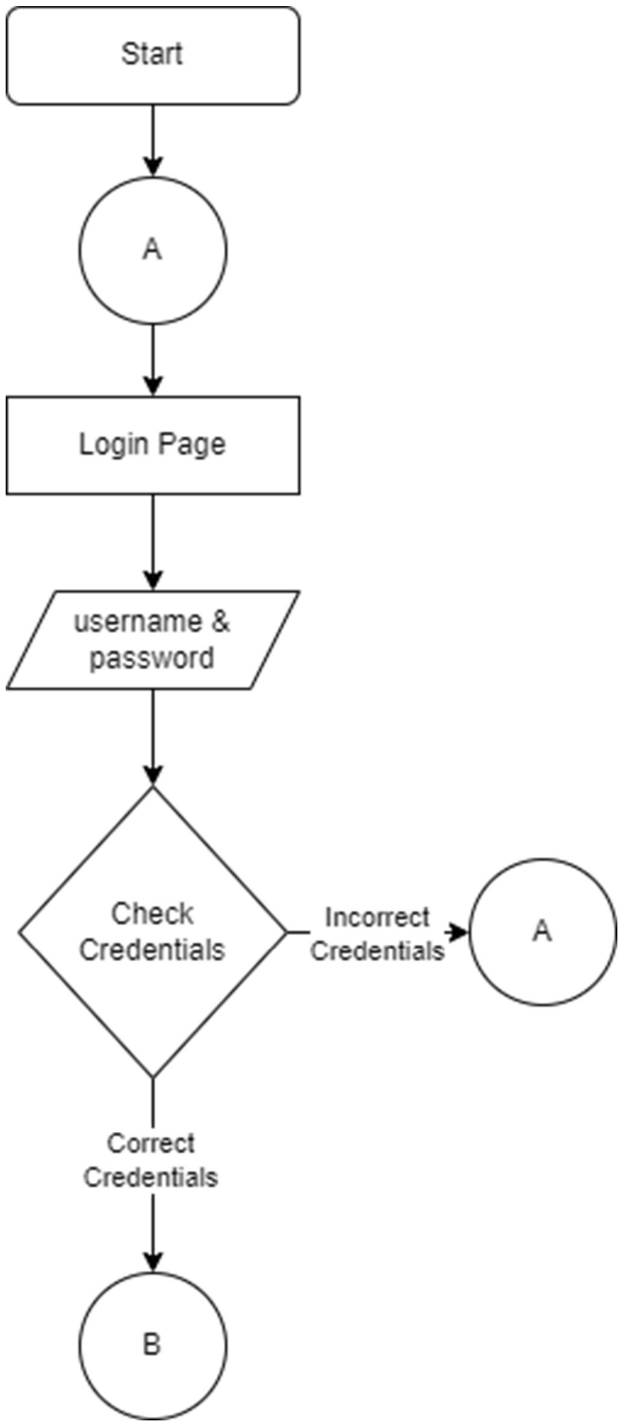
5. Detail Planning:

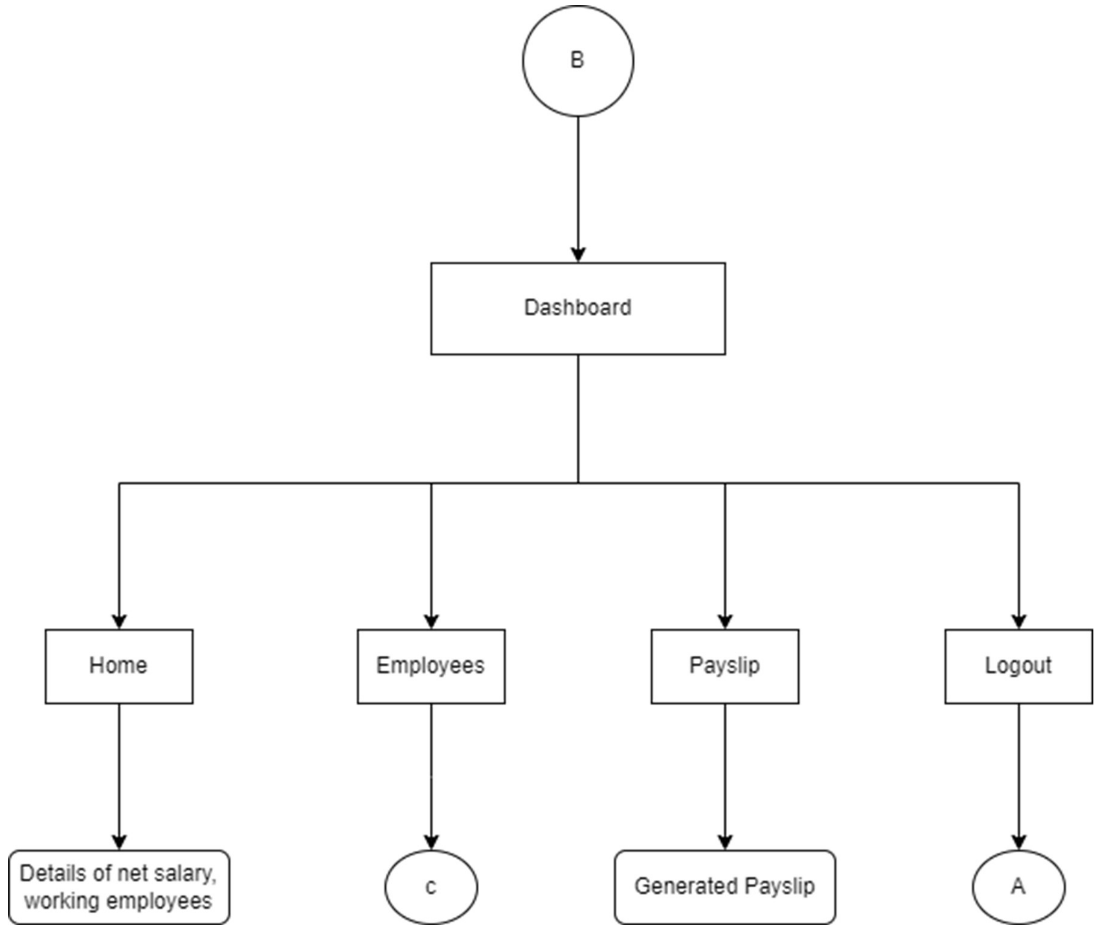
5.1. Data Flow Diagram / UML:

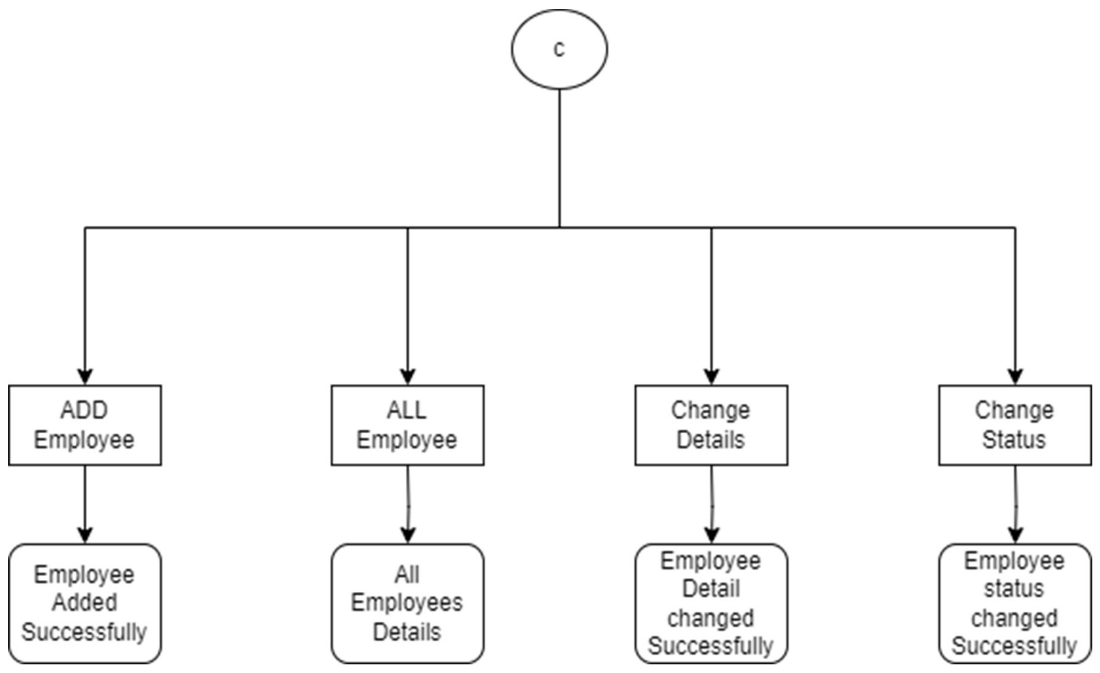


5.2. Process Specification / Activity Flow Diagram:

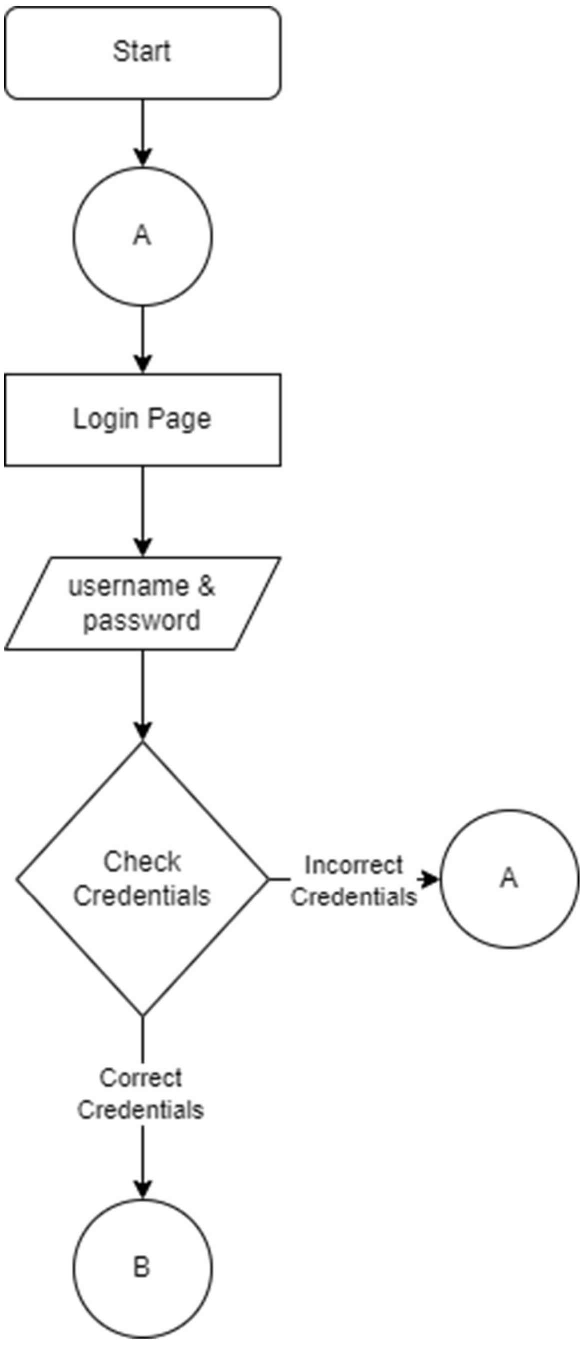
- **Admin:**

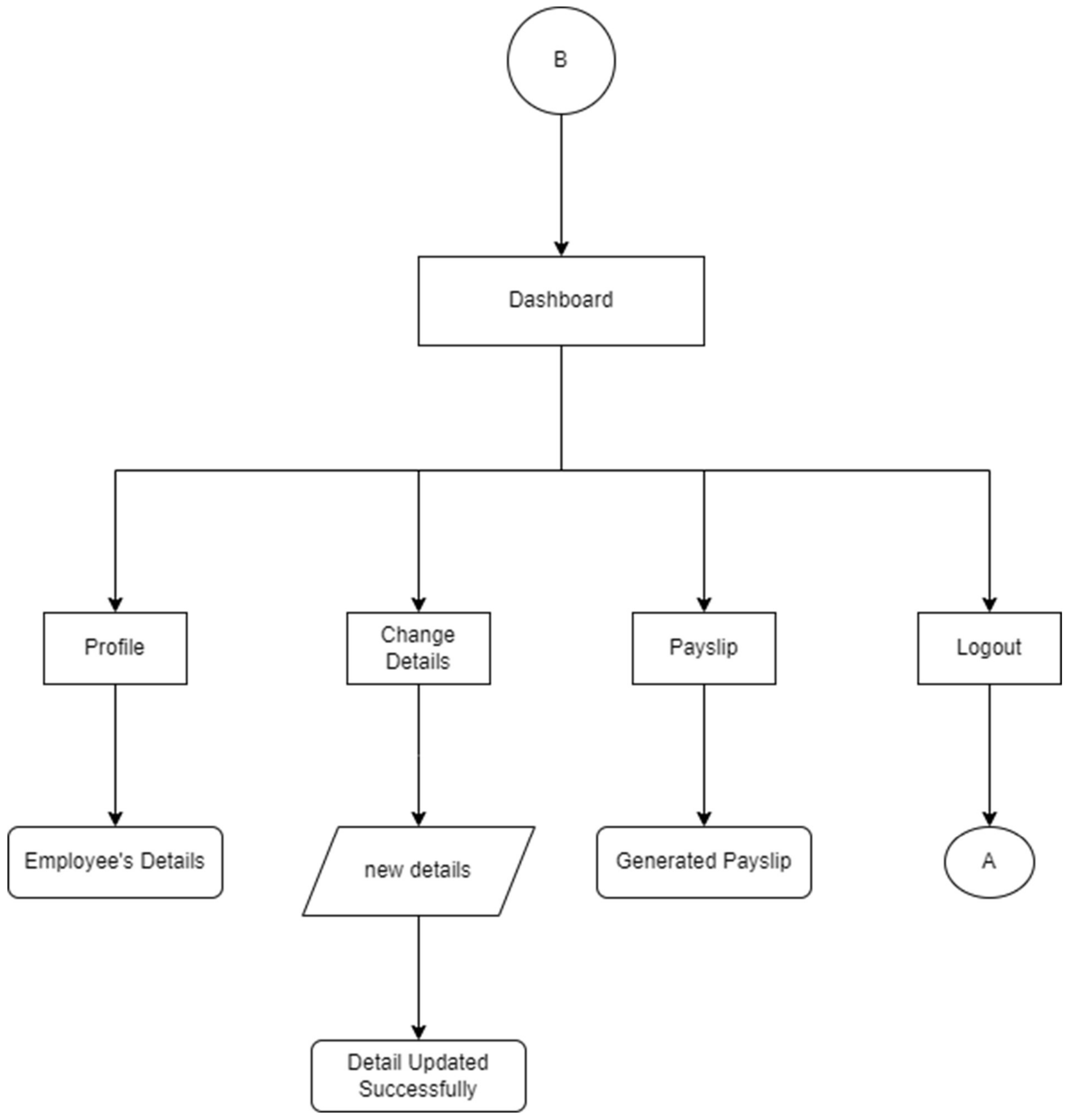



B
Dashboard
Home
Employees
Payslip
Logout
Details of net salary, working employees
c
Generated Payslip
A


c
ADD Employee
ALL Employee
Change Details
Change Status
Employee Added Successfully
All Employees Details
Employee Detail changed Successfully
Employee status changed Successfully

- Employees:


Start
A
Login Page
username & password
Check Credentials
Incorrect Credentials
A
Correct Credentials
B


B
Dashboard
Profile
Change Details
Payslip
Logout
Employee's Details
new details
Generated Payslip
A
Detail Updated Successfully

5.3. Data Dictionary:

Table name: Admin

Field Name	Data Type	Description
Id	Integer	Unique identifier for admin
Username	String	Name of the admin
Email	String	Email address of admin
Password	String	Pass code to login into the system

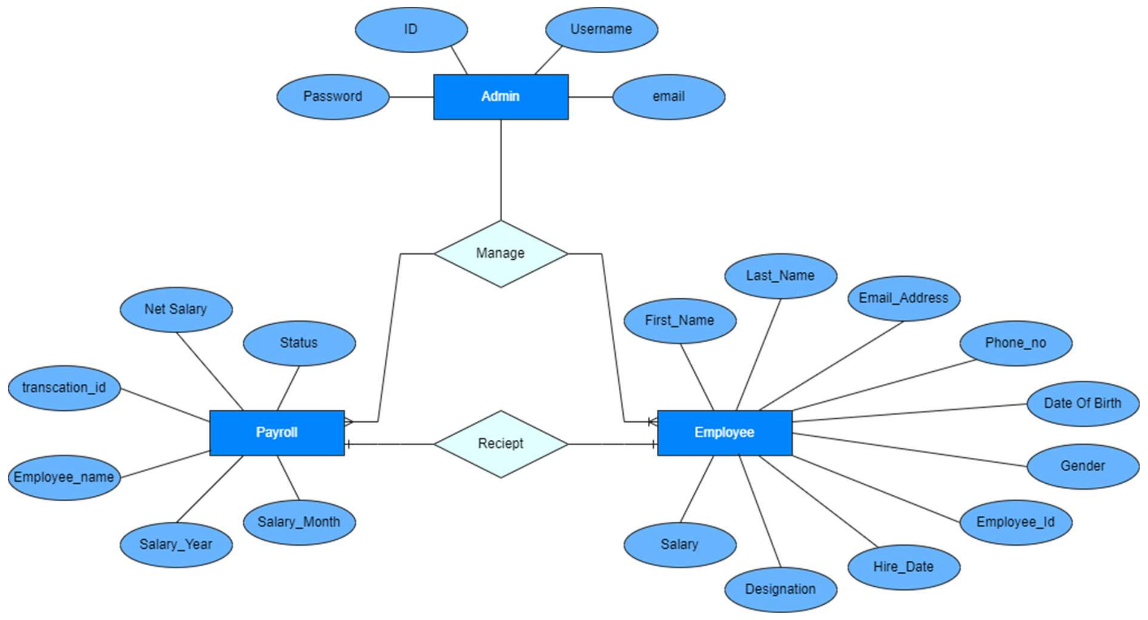
Table name: Employees

Field Name	Data Type	Description
Employee id	Integer	Unique Identifier for each employee
First Name	String	First name of the employee
Last Name	String	Last name of the employee
Email address	String	Email address of the employee
Phone No.	Integer	Contact No. of the employee
Date of Birth	Date	Birth date of the employee
Gender	String	Gender of the employee
Hire Date	Date	Hiring date of the employee
Designation	String	Designation of the employee
Salary	Integer	Salary of the employee

Table name: Pay-slips

Field Name	Data Type	Description
Transaction id	Integer	Unique id for each transaction
Salary month	Date	Month of salary month
Salary year	Date	Year of salary year
Employee id	Integer	Employee id for references to the employee
Net salary	Integer	Total salary of the employee
Status	String	Status of the salary (paid/unpaid)

5.4. Entity-Relationship Diagram / Class Diagram:



6. System Desing:

6.1. Database design:

- Admin Table:

  This table stores the basic information about admin, such as id unique identifier, name for login purpose, email, password for login into the system. The admin can login into the system using name and password.

- Employees Table:

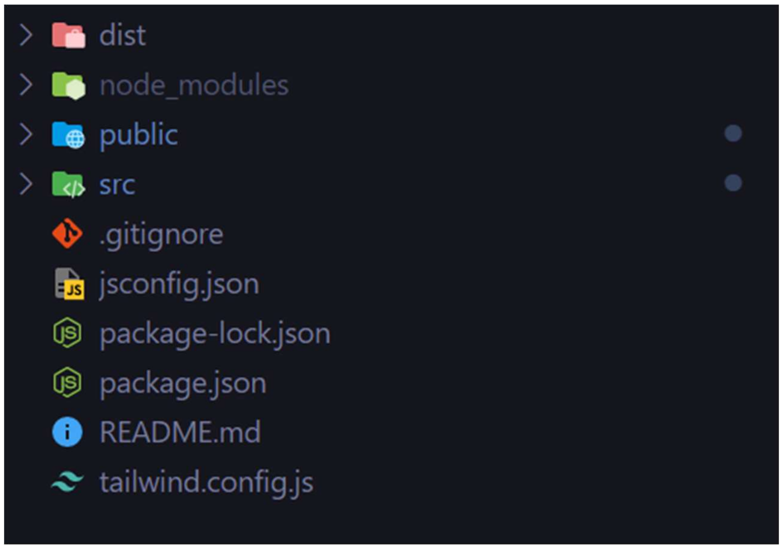
  This table stores the basic information about each employee, such as employee id, first and last name, email address, phone number, gender, date of birth, joining and hiring date of the employee, designation of the employee and the salary of the employee.
  Employee can login into the system using name and password.

- Payslip Table:

  This table stores the information about pay-slips, such as transaction id, month of the salary is given, year of the salary is given, employee name, net salary of employee and status of payment.

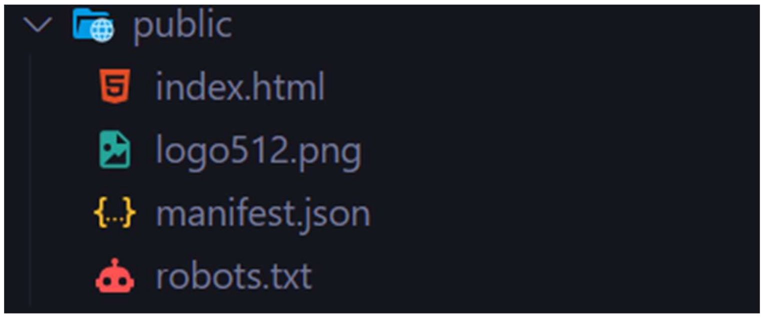
6.2. Directory Structure:

Project folders:



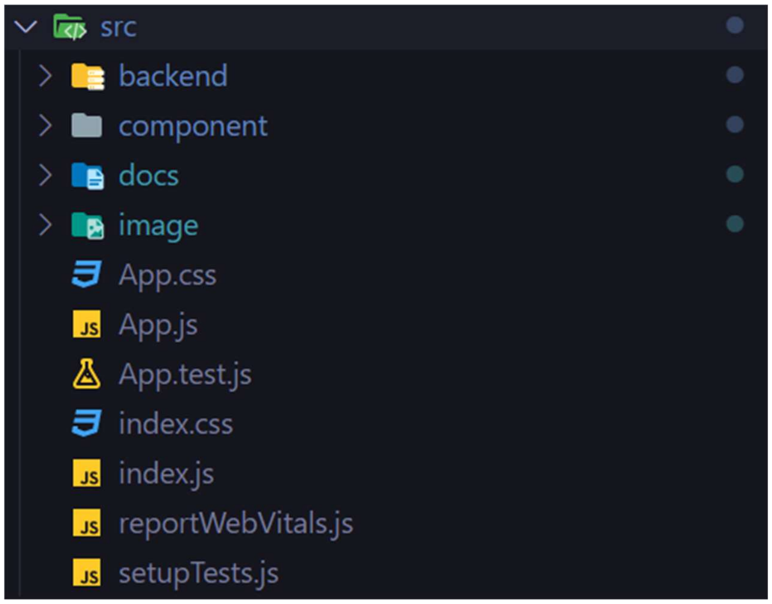
```
> dist
> node_modules
> public
> src
  .gitignore
  jsconfig.json
  package-lock.json
  package.json
  README.md
  tailwind.config.js
```

Public folders:



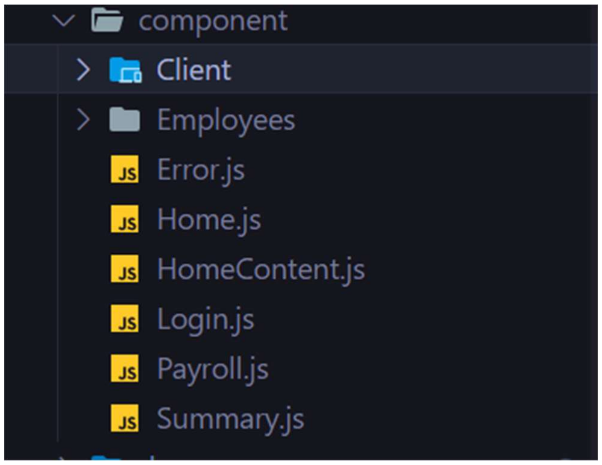
```
public
    index.html
    logo512.png
    manifest.json
    robots.txt
```

Src folders:



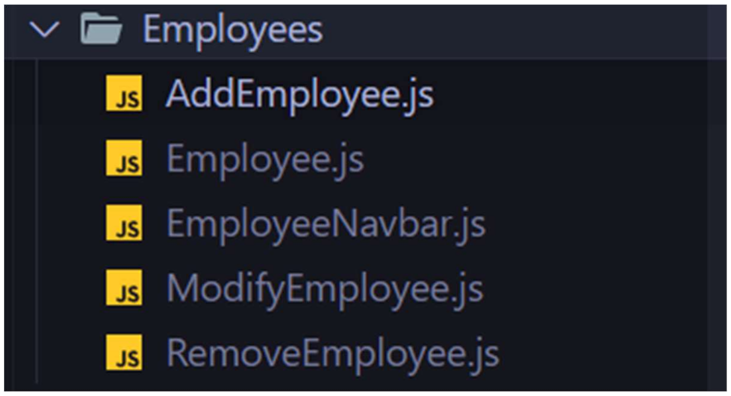
```
src
    backend
    component
    docs
    image
    App.css
    App.js
    App.test.js
    index.css
    index.js
    reportWebVitals.js
    setupTests.js
```

Components folder:

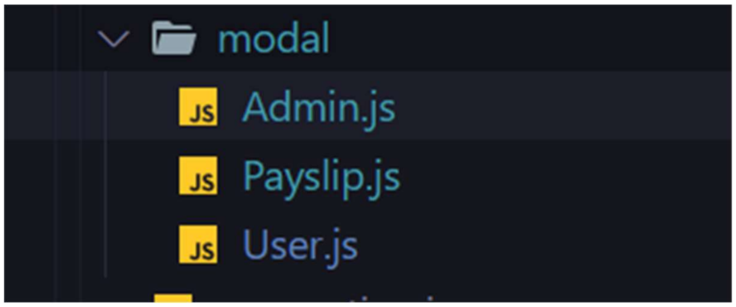


```
component
    Client
    Employees
    Error.js
    Home.js
    HomeContent.js
    Login.js
    Payroll.js
    Summary.js
```

Employees Folder:



Model Folder:



Backend folders:

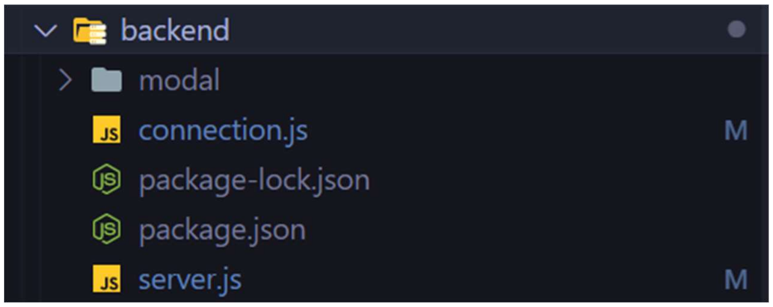
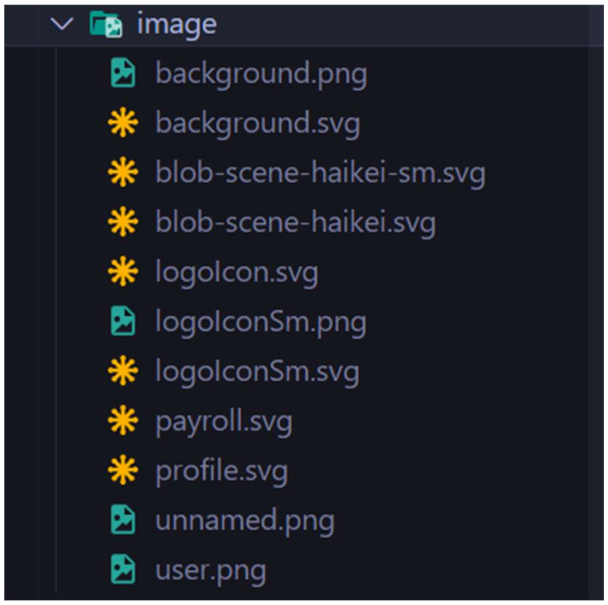


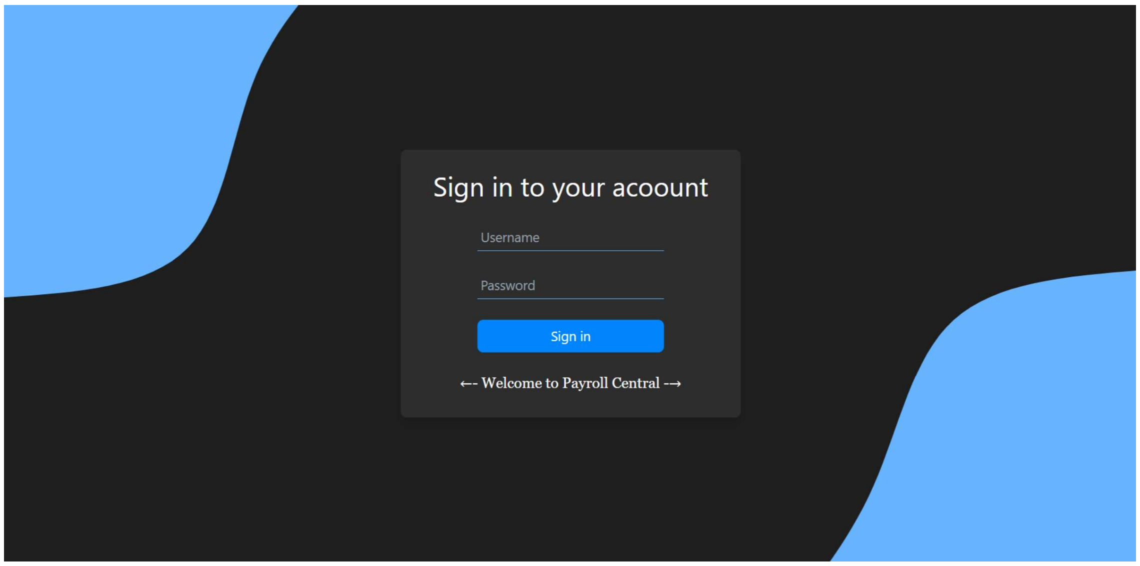
Image folder:



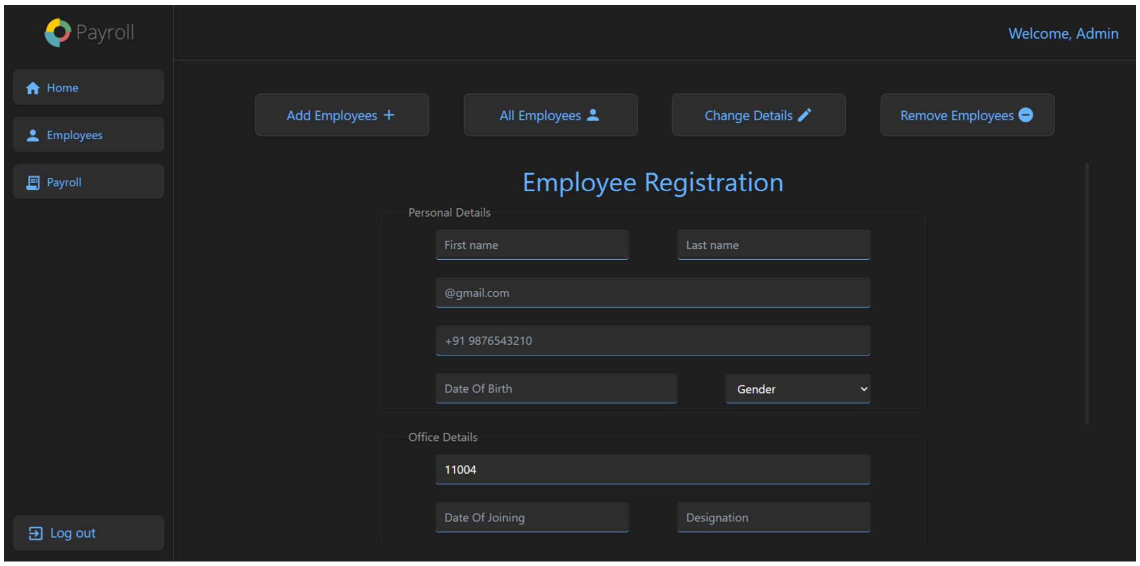
```
image
    background.png
    background.svg
    blob-scene-haikei-sm.svg
    blob-scene-haikei.svg
    logoIcon.svg
    logoIconSm.png
    logoIconSm.svg
    payroll.svg
    profile.svg
    unnamed.png
    user.png
```

6.3. Input Design:

- Login page:

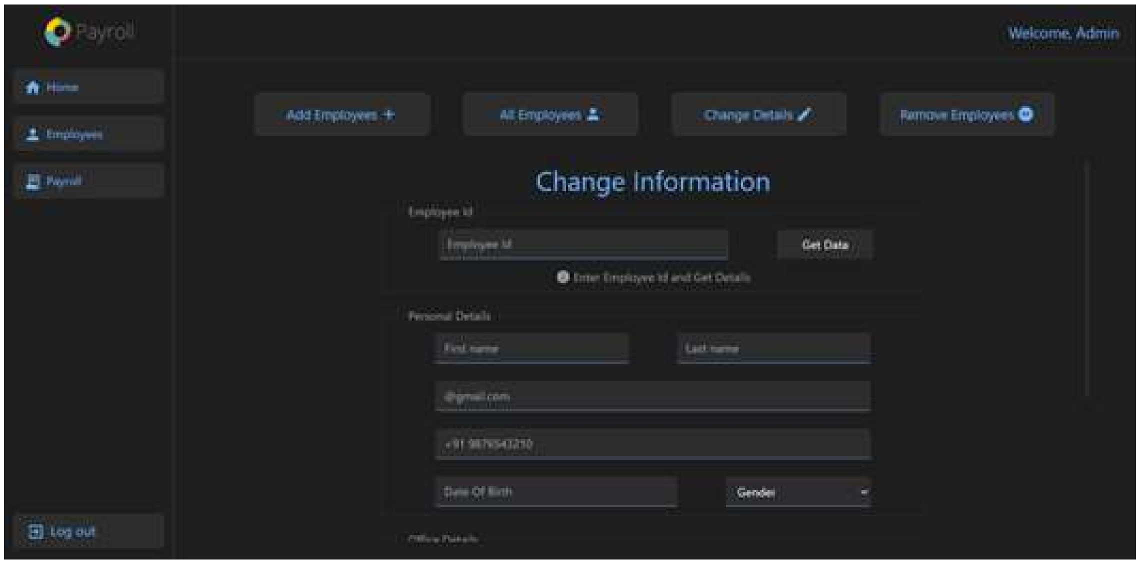


- Employee Registration Form:

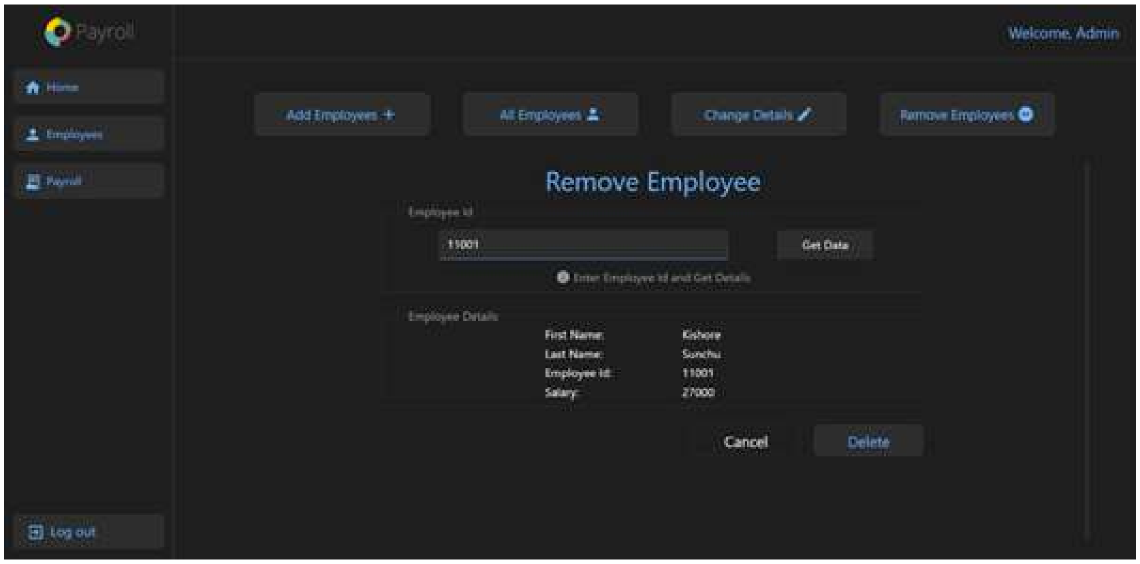


11004

- Employee Change Information Form (Admin Side):



- Employee Active or Inactive Status Change Form:



Remove Employee

Employee Id

11001

Get Data

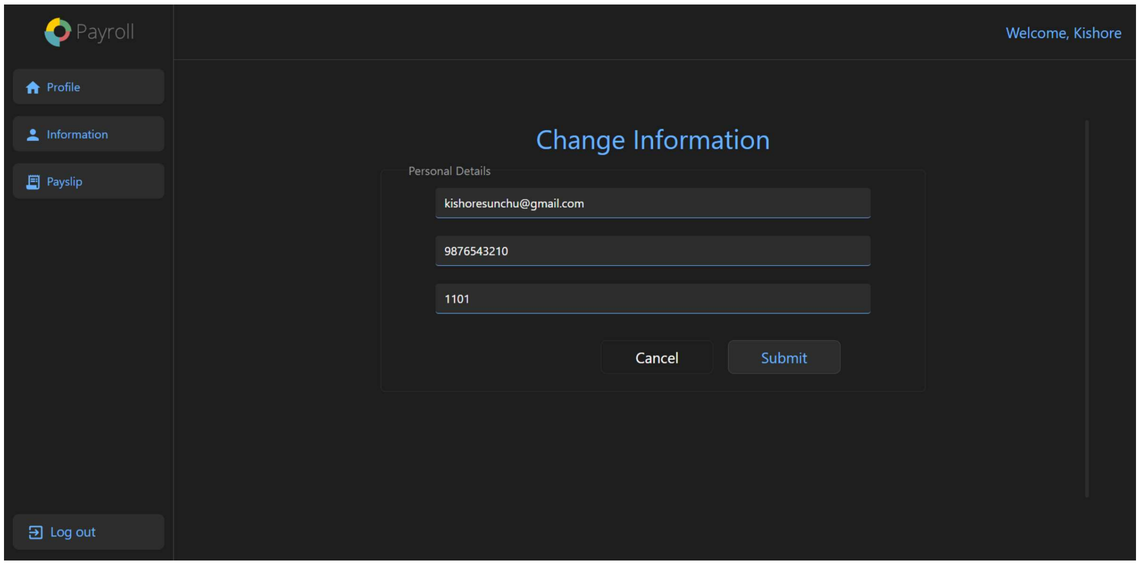
Enter Employee Id and Get Details

Employee Details

First Name:	Kishore
Last Name:	Sunchu
Employee Id:	11001
Salary:	27000

Cancel Delete

- Change Information Form (Employee Side):



Change Information

Personal Details

kishoresunchu@gmail.com

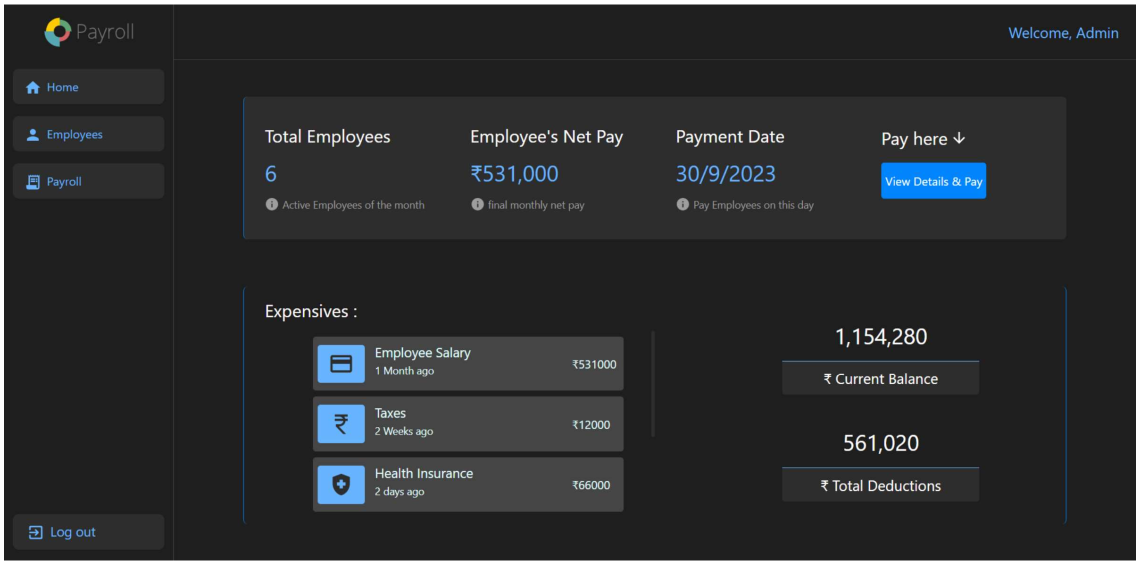
9876543210

1101

Cancel Submit

6.4. Output design:

Admin Dashboard – Home page:



Payroll

Home

Employees

Payroll

Log out

Welcome, Admin

Total Employees
6
Active Employees of the month

Employee's Net Pay
₹531,000
final monthly net pay

Payment Date
30/9/2023
Pay Employees on this day

Pay here ↓
View Details & Pay

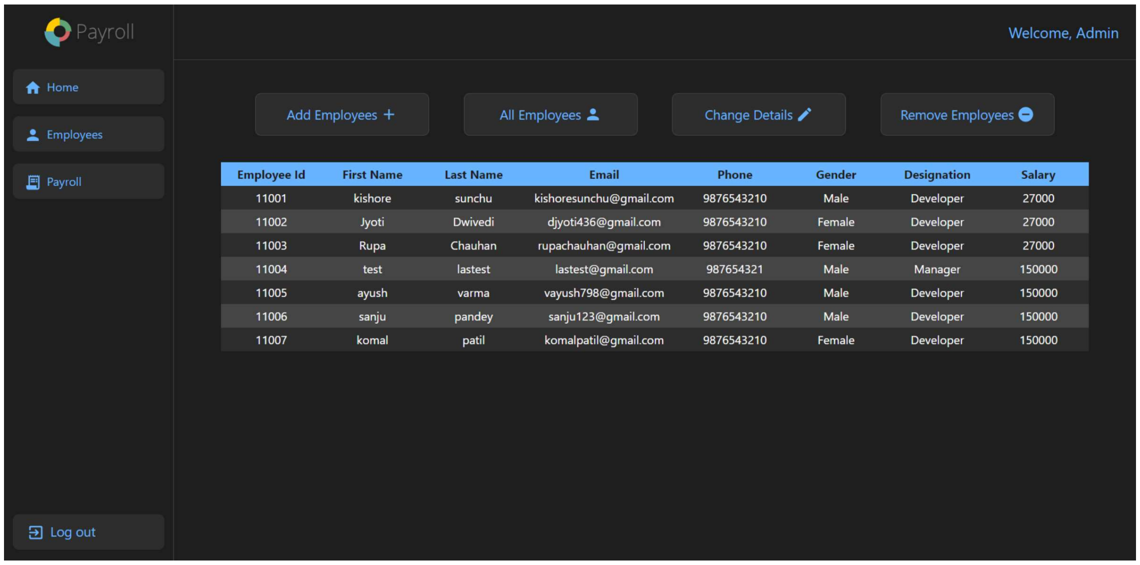
Expensives :

Employee Salary	1 Month ago	₹531000
Taxes	2 Weeks ago	₹12000
Health Insurance	2 days ago	₹66000

1,154,280
₹ Current Balance

561,020
₹ Total Deductions

Admin Dashboard – Employees



Payroll

Home

Employees

Payroll

Log out

Welcome, Admin

Add Employees +

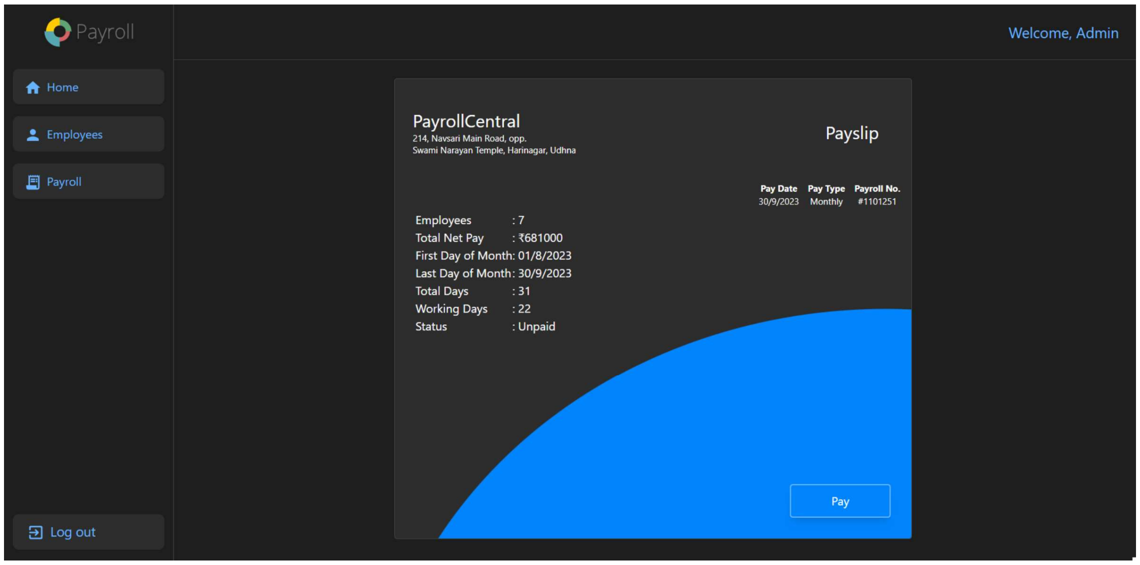
All Employees

Change Details

Remove Employees

Employee Id	First Name	Last Name	Email	Phone	Gender	Designation	Salary
11001	kishore	sunchu	kishoresunchu@gmail.com	9876543210	Male	Developer	27000
11002	Jyoti	Dwivedi	djyoti436@gmail.com	9876543210	Female	Developer	27000
11003	Rupa	Chauhan	rupachauhan@gmail.com	9876543210	Female	Developer	27000
11004	test	lastest	lastest@gmail.com	987654321	Male	Manager	150000
11005	ayush	varma	vayush798@gmail.com	9876543210	Male	Developer	150000
11006	sanju	pandey	sanju123@gmail.com	9876543210	Male	Developer	150000
11007	komal	patil	komalpatil@gmail.com	9876543210	Female	Developer	150000

Admin Dashboard – Payroll



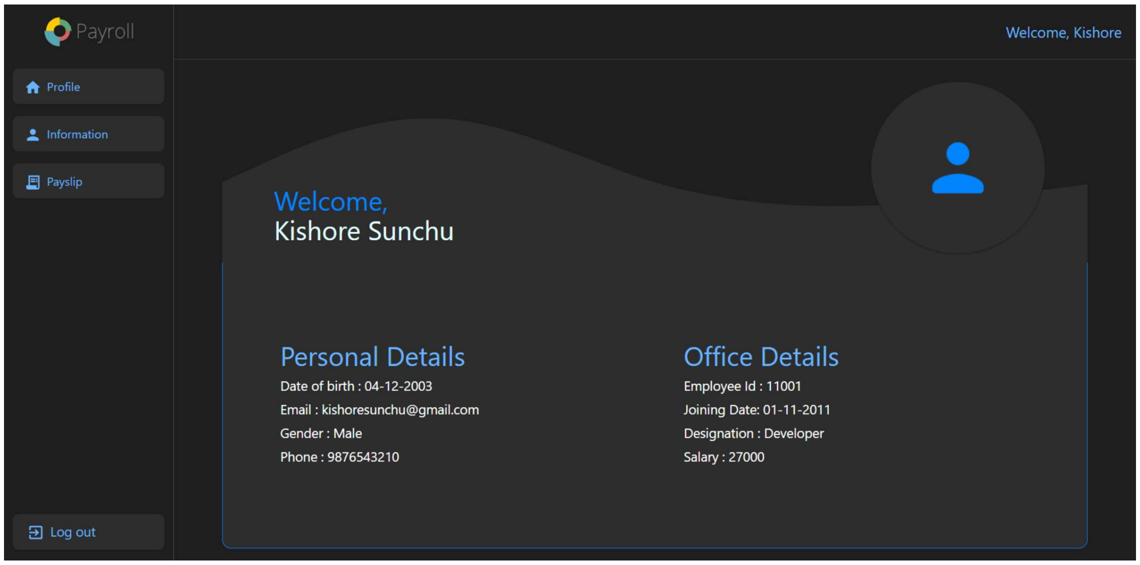
PayrollCentral
214, Navsari Main Road, opp.
Swami Narayan Temple, Harinagar, Udhna

Payslip

Pay Date	Pay Type	Payroll No.
30/9/2023	Monthly	#1101251

Employees	: 7
Total Net Pay	: ₹681000
First Day of Month	: 01/8/2023
Last Day of Month	: 30/9/2023
Total Days	: 31
Working Days	: 22
Status	: Unpaid

Employee Dashboard – Profile

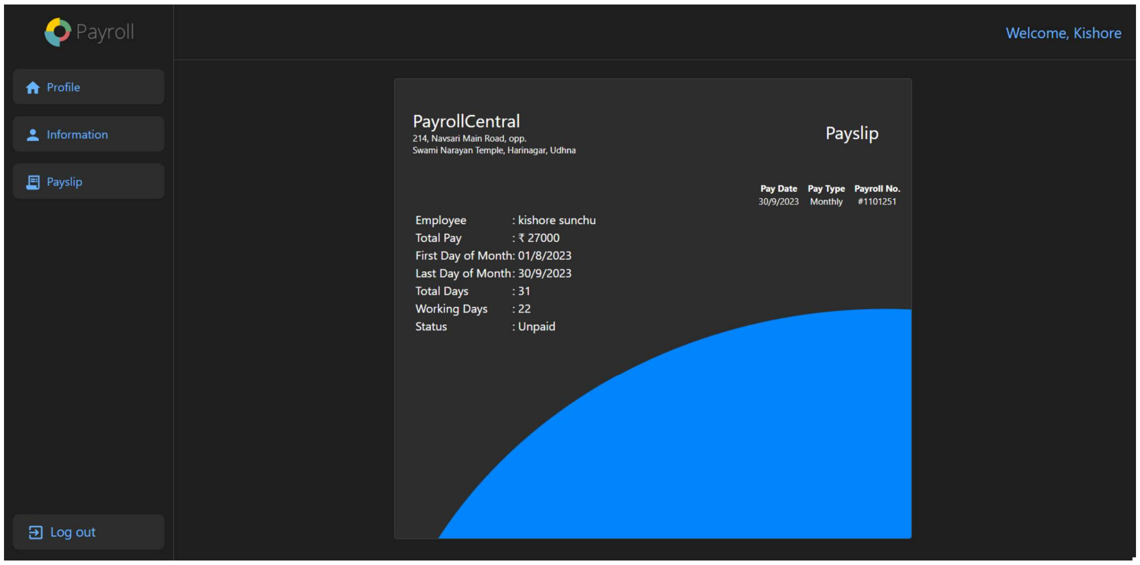


Welcome,
Kishore Sunchu

Personal Details
Date of birth : 04-12-2003
Email : kishoresunchu@gmail.com
Gender : Male
Phone : 9876543210

Office Details
Employee Id : 11001
Joining Date: 01-11-2011
Designation : Developer
Salary : 27000

Employee Dashboard – Pay-slip



PayrollCentral
214, Navsari Main Road, opp.
Swami Narayan Temple, Harinagar, Udhna

Payslip

Pay Date	Pay Type	Payroll No.
30/9/2023	Monthly	#1101251

Employee	: kishore sunchu
Total Pay	: ₹ 27000
First Day of Month	: 01/8/2023
Last Day of Month	: 30/9/2023
Total Days	: 31
Working Days	: 22
Status	: Unpaid

6.5. Development Code:

Index.html:

```html
<!DOCTYPE html>
<html lang="en">

<head>
  <meta charset="utf-8" />
  <link rel="icon" type="image/x-icon" href="/src/image/payroll.svg">
  <meta name="viewport" content="width=device-width, initial-scale=1" />
  <link rel="stylesheet"
    href="https://fonts.googleapis.com/css2?family=Material+Symbols+Outlined:o
psz,wght,FILL,GRAD@20..48,100..700,0..1,-50..200" />
  <link rel="manifest" href="%PUBLIC_URL%/manifest.json" />
  <link href="/dist/output.css" rel="stylesheet">
  <title>React App</title>
</head>

<body>
  <noscript>You need to enable JavaScript to run this app.</noscript>
  <div id="root" class="h-screen"></div>

</body>

</html>
```

App.js:

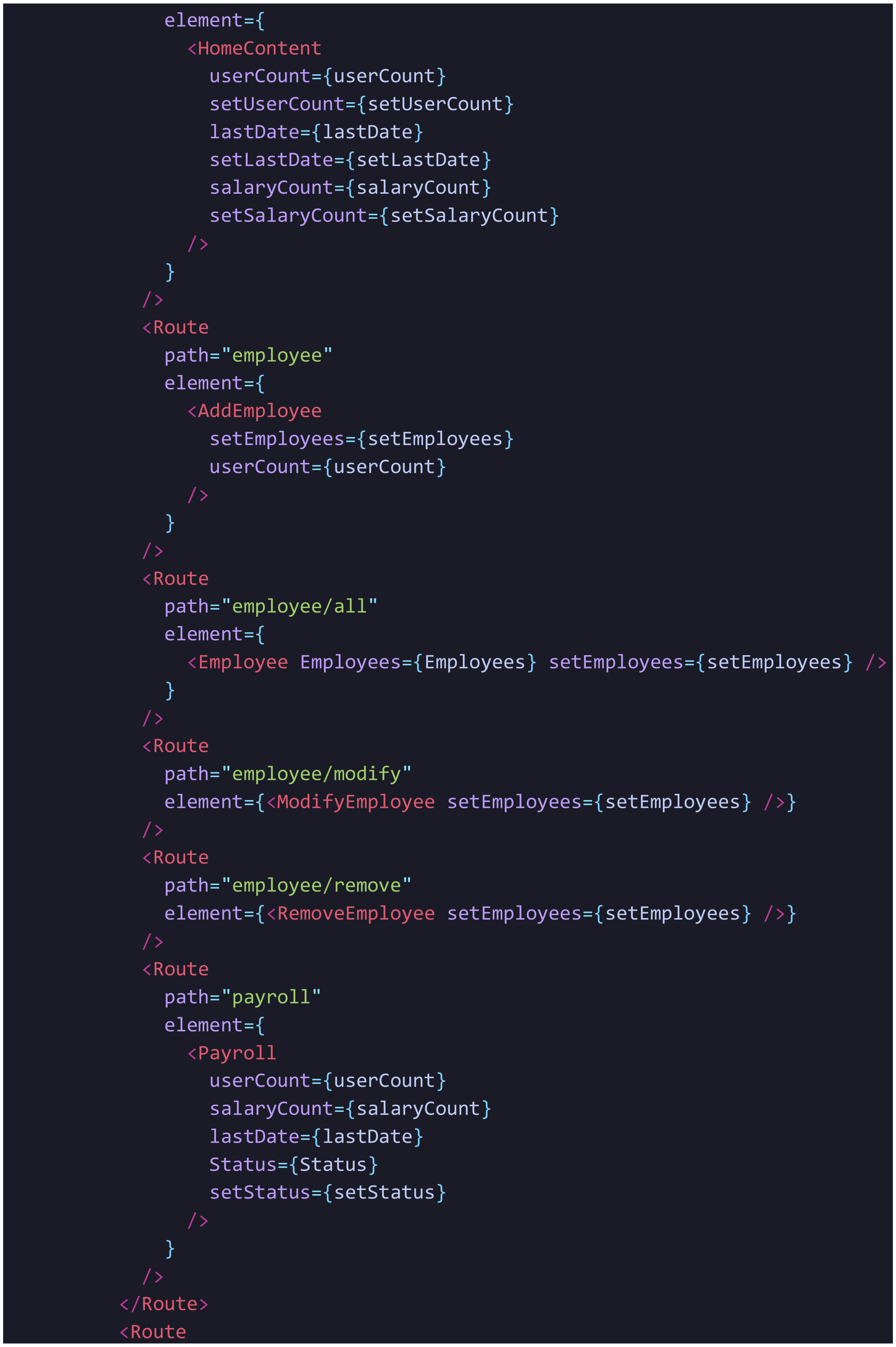
```javascript
import "./App.css";
import { useEffect, useState } from "react";
import { BrowserRouter as Router, Routes, Route } from "react-router-dom";
import Login from "./component/Login";
import Home from "./component/Home";
import HomeContent from "./component/HomeContent";
import Payroll from "./component/Payroll";
import Error from "./component/Error";
import Employee from "./component/Employees/Employee";
import AddEmployee from "./component/Employees/AddEmployee";
import ModifyEmployee from "./component/Employees/ModifyEmployee";
import RemoveEmployee from "./component/Employees/RemoveEmployee";
import ClientDashboard from "./component/Client/ClientDashboard";
import Profile from "./component/Client/Profile";
import Information from "./component/Client/Information";
import Payslip from "./component/Client/Payslip";

function App() {
  const [Session, setSession] = useState(0);

  const [Employees, setEmployees] = useState();
  const [User, setUser] = useState("");
  const [lastDate, setLastDate] = useState();
  const [userCount, setUserCount] = useState(0);
  const [salaryCount, setSalaryCount] = useState(0);
  const [Status, setStatus] = useState("Unpaid");

  useEffect(() => {
    var date = new Date();
    var year = date.getFullYear();
    var month = date.getMonth();
    var day = new Date(year, month + 1, 0);
    setLastDate(day.getDate() + "/" + (month + 1) + "/" + year);
  }, []);

  return (
    <>
      <Router>
        <Routes>
          <Route
            index
            element={
              <Login
                setSession={setSession}
                setUser={setUser}
                setEmployees={setEmployees}
                Employees={Employees}
              />
            }
          />
          <Route
            path="/home"
            element={
              Session !== 0 ? (
                <Home
                  Session={Session}
                  setEmployees={setEmployees}
                  setSession={setSession}
                  User={User}
                />
              ) : (
                <Error />
              )
            }>
            <Route
              path=""
```



```
    element={
      <HomeContent
        userCount={userCount}
        setUserCount={setUserCount}
        lastDate={lastDate}
        setLastDate={setLastDate}
        salaryCount={salaryCount}
        setSalaryCount={setSalaryCount}
      />
    }
  />
  <Route
    path="employee"
    element={
      <AddEmployee
        setEmployees={setEmployees}
        userCount={userCount}
      />
    }
  />
  <Route
    path="employee/all"
    element={
      <Employee Employees={Employees} setEmployees={setEmployees} />
    }
  />
  <Route
    path="employee/modify"
    element={<ModifyEmployee setEmployees={setEmployees} />}
  />
  <Route
    path="employee/remove"
    element={<RemoveEmployee setEmployees={setEmployees} />}
  />
  <Route
    path="payroll"
    element={
      <Payroll
        userCount={userCount}
        salaryCount={salaryCount}
        lastDate={lastDate}
        Status={Status}
        setStatus={setStatus}
      />
    }
  />
</Route>
<Route
```

```
          path="/Dashboard"
          element={
            Session !== 0 ? (
              <ClientDashboard
                Session={Session}
                setSession={setSession}
                User={User}
              />
            ) : (
              <Error />
            )
          }>
          <Route
            path=""
            element={
              <Profile
                User={User}
                setEmployees={setEmployees}
                Employees={Employees}
              />
            }
          />
          <Route
            path="information"
            element={
              <Information
                User={User}
                setEmployees={setEmployees}
                Employees={Employees}
              />
            }
          />
          <Route
            path="payslip"
            element={
              <Payslip
                Employees={Employees}
                lastDate={lastDate}
                Status={Status}
                setStatus={setStatus}
              />
            }
          />
        </Route>
      </Routes>
    </Router>
  </>
);
```

```
}
export default App;
```

login.js:

```
import React, { useState, useEffect } from "react";
import { useNavigate } from "react-router-dom";

export default function Login({
  setSession,
  setUser,
  setid,
  setEmployees,
  Employees,
}) {
  useEffect(() => {
    document.title = `PayrollCentral | SignIn`;
  });

  const navigate = useNavigate();
  const [Form, setForm] = useState("");

  const handleForm = (e) => {
    setForm({
      ...Form,
      [e.target.name]: e.target.value,
    });
  };

  const handleSubmit = async (e) => {
    e.preventDefault();
    const response = await fetch("http://localhost:5000/auth", {
      headers: {
        "Content-Type": "application/json",
      },
      method: "POST",
      body: JSON.stringify(Form),
    });
    const data = await response.json();
    if (data.status === "true" && data.user === "Admin") {
      setSession(2);
      setUser(data.fname);
      navigate("/home");
    } else if (data.status === "true" && data.user === "Employee") {
      setSession(2);
      setUser(data.fname);
      // setid(data.id);
      const response = await fetch("http://localhost:5000/employeeData", {
        headers: {
          "Content-Type": "application/json",
        },
        method: "POST",
        body: JSON.stringify({ emp_id: data.id }),
      });
      const UserData = await response.json();
      setEmployees(UserData);
      navigate("/Dashboard");
    } else {
      alert("Invalid Username and Password");
    }
  };

  return (
    <>
      <div className="bg-bgColor-100 w-screen h-screen lg:flex flex flex-wrap-
reverse justify-center items-center lg:bg-backgroundDesign bg-
backgroundDesignSm bg-center bg-cover bg-no-repeat">
        <div className="lg:h-4/5 lg:w-1/2 w-full h-1/2 flex justify-center
items-center">
          <form
            className="bg-bgColor-200 lg:h-3/5 p-5 text-textColor-100 lg:w-3/5
w-4/5 rounded-lg lg:shadow-lg shadow-sm"
            onSubmit={handleSubmit}>
            <h1 className="text-center lg:text-4xl lg:mb-8 lg:mt-2 font-sans
text-2xl">
              Sign in to your acoount
            </h1>
            <div className="flex justify-center lg:my-7 my-7">
              <input
                type="text"
                name="fname"
                onChange={handleForm}
                className="bg-transparent border-b border-primary-200 outline-
none lg:p-1 lg:w-3/5 w-4/5 mx-auto lg:text-lg"
                placeholder="Username"
              />
            </div>
            <div className="flex justify-center lg:my-7 my-7">
              <input
                type="password"
                name="password"
                onChange={handleForm}
                className="bg-transparent border-b border-primary-200 outline-
none lg:p-1 lg:w-3/5 w-4/5 mx-auto lg:text-lg"
                placeholder="Password"
              />
            </div>
            <div className="flex justify-center lg:my-7 my-7">
              <button
                type="submit"
                className="bg-primary-100 lg:w-3/5 w-4/5 text-lg lg:p-2 p-1
rounded-lg hover:bg-accent-100 hover:text-primary-300 outline-accent-100">
                Sign in
              </button>
            </div>
            <div className="flex justify-center lg:my-7 my-7">
              <h1 className="lg:text-xl font-serif">
                ←- Welcome to Payroll Central -→
              </h1>
            </div>
          </form>
        </div>
      </div>
    </>
  );
}
```

connection.js

```
const mongoose = require("mongoose");
const URL = "mongodb://127.0.0.1:27017";

const connectToMongo = () => {
  mongoose
    .connect(URL)
    .then(() => {
      console.log("Connected to mongo");
    })
    .catch(() => {
      throw new Error("Could not connect");
    });
};

module.exports = connectToMongo;
```

user.js:

```
const mongoose = require("mongoose");
const Schema = mongoose.Schema;

const UserSchema = new Schema({
  fname: {
    type: String,
    required: true,
  },
  lname: {
    type: String,
    required: true,
  },
  email: {
    type: String,
    required: true,
    unique: [true, "Email already in used"],
  },
  phone: {
    type: Number,
    required: true,
  },
  dob: {
    type: Date,
    required: true,
  },
  gender: {
    type: String,
    required: true,
  },
  emp_id:{
    type:Number,
    required:true,
  },
  hire_date: {
    type: Date,
    required: true,
  },
  job_title: {
    type: String,
    required: true,
  },
  salary: {
    type: Number,
    required: true,
  },
  password: {
    type: String,
    required: true,
  },
  date: {
    type: Date,
    default: Date.now,
  },
});

const User = mongoose.model("employees", UserSchema);
```

```
module.exports = User;
```

server.js:

```
const express = require("express");
const cors = require("cors");
const bodyParser = require("body-parser");
const connectToMongo = require("./connection");
const User = require("./modal/User");

const port = 5000;
const server = express();
server.use(cors());
server.use(bodyParser());
connectToMongo();

//  to start the localhost
server.listen(port, () => {
  console.log(`Server is running on port ${port}`);
});


// for login purpose
server.post("/auth", async (req, res) => {
  const userId = req.body.fname;
  const userPassword = req.body.password;
  if (userId === "admin" && userPassword === "admin") {
    res.json({ status: "true", fname: "Admin", user: "Admin" });
  } else {
    const user = await User.findOne({
      $and: [{ fname: userId }, { password: userPassword }],
    });
    if (user !== null) {
      res
        .status(200)
        .json({
          status: "true",
          fname: user.fname,
          user: "Employee",
          id: user.emp_id,
        });
    } else {
      console.log("sended false");
      res.send(false);
    }
  }
});
```

```
// for count user and total salary
server.post("/countUser", async (req, res) => {
  const count = await User.countDocuments();
  const totalSalary = await User.aggregate([
    { $group: { _id: null, total_salary: { $sum: "$salary" } } },
  ]);
  const salaryCount = totalSalary[0].total_salary;
  res.status(200).json({ count: count, salary: salaryCount });
});

// for find all employees  data
server.post("/employees", async (req, res) => {
  const employees = await User.find();
  res.send(employees);
});


// add new employee
server.post("/add", async (req, res) => {
  const user = new User();
  user.fname = req.body.fname;
  user.lname = req.body.lname;
  user.email = req.body.email;
  user.phone = req.body.phone;
  user.dob = req.body.dob;
  user.gender = req.body.gender;
  user.emp_id = req.body.emp_id;
  user.hire_date = req.body.hire_date;
  user.job_title = req.body.job_title;
  user.salary = req.body.salary;
  user.password = req.body.password;
  const data = await user.save();
  if (data._id !== "") {
    res.json({ status: true });
  } else {
    res.json({ status: false });
  }
});

// for employee data  by using id
server.post("/employeeData", async (req, res) => {
  const emp_id = req.body.emp_id;
  const user = await User.findOne({ emp_id: emp_id });
  if (user !== null) {
    res.send(user);
  } else {
    res.send(false);
  }
});
```

```
// for update employee information
server.post("/update", async (req, res) => {
  const emp_id = req.body.emp_id;
  const user = await User.findOne({ emp_id: emp_id });
  if (user !== null) {
    const data = await user.updateOne({
      email: req.body.email,
      phone: req.body.phone,
      password: req.body.password,
    });
    if (data !== null) {
      res.json({ status: true });
    } else {
      res.json({ status: false, reason: "something went wrong" });
    }
  } else {
    res.json({ status: false, reason: "Employee Does Not Exist" });
  }
});

// for delete employee information
server.post("/delete", async (req, res) => {
  const emp_id = req.body.emp_id;
  const user = await User.findOne({ emp_id: emp_id });
  const data = await user.deleteOne();
  if (data._id !== "") {
    res.json({ status: true });
  } else {
    res.json({ status: false, reason: "Employee Does Not Exist" });
  }
});
```

tailwind.config.js:

```
/** @type {import('tailwindcss').Config} */
module.exports = {
  content: ["./src/**/*.{html,js}"],
  theme: {
    extend: {
      colors:{
        'primary' : {
          100:'#0085ff',
          200:'#69b4ff',
          300:'#e0ffff',
        },
        'accent':{
          100:'#006fff',
          200:'#e1ffff',
        },
        'textColor':{
          100:'#FFFFFF',
          200:'#9e9e9e',
        },
        'bgColor':{
          100:'#1E1E1E',
          200:'#2d2d2d',
          300:'#454545',
        },
      },
      backgroundImage:{
        'backgroundDesign':"url(/src/image/blob-scene-haikei.svg)",
        'backgroundDesignSm':"url(/src/image/blob-scene-haikei-sm.svg)",
        'logoIcon':"url(/src/image/logoIcon.svg)",
        'logoIconSm':"url(/src/image/logoIconSm.png)",
        'payroll':"url(/src/image/payroll.svg)",
        'profile':"url(/src/image/profile.svg)",
        'user':"url(/src/image/user.png)",
      },
      spacing: {
        '5%': '5%',
        '10%': '10%',
        '15%': '15%',
        '20%': '20%',
        '25%': '25%',
        '30%': '30%',
        '40%': '40%',
        '50%': '50%',
        '60%': '60%',
        '70%': '70%',
        '80%': '80%',
        '85%': '85%',
        '90%': '90%',
        '95%': '95%',
      },
    },
  },
  plugins: [],
};
```

7. Software Testing

1. **Data Entry:**

Test the data entry fields to make sure they are properly formatted and validated. For example, the phone no field should only accept numeric values and 10-digit number and hire date field should only accept date values.

2. **Calculations:**

Test the payroll calculations to make sure they are accurate. For example, the system should correctly calculate all employee salary accurately.

3. **Security:**

Test the security of the payroll system to make sure it is protected form unauthorized access. For example, the system should require users to authenticate themselves before they can access sensitive data.

4. **Reports:**

Test the payroll reports to make sure they are accurate and easy to read. For example, the system should generate a report that list all employees and their pay stubs for a given period.

8. Limitations and Future Scope of Enhancements:

I. Limitations:

a. Internet is required
b. Proper data is needed.

II. Future scope of Enhancements:

a. Make the system more user-friendly.
b. Use AI and machine learning.
c. Automate more tasks
d. Make the system more secure.
e. Offer mobile access from website.
f. Make app for the system.

9. References:

- https://tailwindcss.com/
- https://www.npmjs.com/
- https://legacy.reactjs.org/
- https://www.mongodb.com/
- https://mongoosejs.com/
- https://expressjs.com/
- https://nodejs.org/en
- https://mui.com/
- https://aicolors.co/
- https://app.haikei.app/
- https://www.npmjs.com/package/nodemon
- https://www.npmjs.com/package/react-countup