A Project Report On

Cloth Manufacturing Management system BTech-sem VII

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A Project Report On

Cloth Manufacturing Management system BTech-sem VII

In partial fulfillment of requirements for

Bachelor of Technology

in

Information Technology

Submitted By:

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Under the Guidance of

Dr. Vipul K. Dabhi



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CANDIDATE'S DECLARATION

We declare that the pre-final semester report entitled Jay Bhingradia and Kishan Bhingradiya is my /our own work conducted under the supervision of the guide Dr. Vipul K. Dabhi.

I/We further declare that to the best of my/our knowledge the report for B.Tech. VII semester does not contain part of the work which has been submitted either in this or any other university without proper citation.

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DHARMSINH DESAI UNIVERSITY NADIAD-387001, GUJARAT



CERTIFICATE

This is to certify that the project carried out in the subject of Software Design Project ,entitled "Cloth Manufacturing Management system" and recorded in this report is a bonafide report of work of

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Dr. Vipul K. Dabhi (Project Guide), Department of Information Technology, Faculty of Technology, Dharmsinh Desai University, Nadiad Date: 11/09/2020

Prof. (Dr.) V . K. Dabhi, Head , Department of Information Technology, Faculty of Technology, Dharmsinh Desai University, Nadiad. Date:11/09/2020

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With sincere regards,

Jay Bhingradiya Kishan Bhingradiya

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ABSTRACT

In the current scenario, Surat companies working in the textile domain use books and files for their inventory to maintain the records related to business. So, our main approach is to reduce their time to maintain the records and replace the conventional method.so our main approach is to reduce time of data entry and battery groth for our business. From old system of pen and paper there can possibility of data mismatch.so by building this application we can approach that difficulty.

Chapter 1:- Introduction

1.1 Project Overview:

This Cloth Manufacturing Management system replaces the traditional, manual data entry system by which a lot of paperwork will be reduced. The manager can access the application, view and can modify if needed at any time. This is the primary feature of the system and after analyzing the data manager can calculate bill(Invoice) and salary also.

1.2 Purpose

The purpose of developing Cloth Manufacturing Management system is to computerize the traditional way of taking attendance. Another purpose for developing this software is to generate the report automatically at the end of the month. This document detailed functional and non-functional requirements for the Cloth Manufacturing Management system. The purpose of this document is that the requirements specified in this should be utilized by the software developer to implement the system.

1.3 Scope

This system reduces much more time than the traditional system. The system provides a cumulative report at every month end for the corresponding company. After the generation of the report the manager can also modify it.

2. Project Management

2.1 Feasibility Study

2.1.1 Technical Feasibility

Technical analysis evaluates technical merits of the system at the same time collects additional information about performances, reliability, maintainability and productivity. The technical feasibility means that the project can be done with the current equipment, existing software technology and the current knowledge.

In our web application We add an Authentication facility like login panel, Sending Production Portal, Salary portal, Selling finished products. Attendance portal, Billing portal and many more portals used for development which altogether makes our system technically feasible.

2.1.2 Time Schedule Feasibility

The project has simple working and the basic requirement can be satisfied within the allotted time period so the time development feasibility is satisfied.

2.1.3 Operational Feasibility

Operational feasibility deals with the acceptance of the user and their willingness to use the system.

There is one user to use the system

Business Manager

Initially, Manager manages all the data entry parts and manages all reports accordingly.

2.2 Project Planning

2.2.1 Project Development Approach and Justification

For project development the Iterative waterfall model is used.

It is a particular implementation of a software development life cycle that focuses on an initial, simplified implementation, which then progressively gains more complexity and a broader feature set until the final system is complete. In short, iterative development is a way of breaking down the software development of a large application into smaller pieces.

This model divides the cycle into the phases mentioned below:

- 1. Feasibility Study
- 2. Requirement analysis and specification
- 3. Design
- 4. Coding and unit testing
- 5. Integration and system testing
- 6. Maintenance

Advantages of Iterative Waterfall Model

• Feedback Path: In the classical waterfall model, there are no feedback paths, so there is no mechanism for error correction. But an iterative waterfall model feedback path from one phase to its preceding phase allows correcting the errors that are committed and these changes are reflected in the later phases.

• **Simple:** Iterative waterfall models are very simple to understand and use. That's why it is one of the most widely used software development models.

Drawbacks of Iterative Waterfall Model

- **Incremental delivery not supported:** In the iterative waterfall model, the full software is completely developed and tested before delivery to the customer. There is no scope for any intermediate delivery. So, customers have to wait a long time for getting the software.
- Overlapping of phases not supported: Iterative waterfall model assumes that one phase can start after completion of the previous phase, But in real projects, phases may overlap to reduce the effort and time needed to complete the project.
- Risk handling not supported: Projects may suffer from various types of risks. But, Iterative waterfall model has no mechanism for risk handling. Project Management

2.3 Project Scheduling

Scheduling the project tasks is an important project planning activity. It involves deciding which task should be taken up and when. In order to schedule the project activities; a software project manager needs to do the following:

- 1. Identify all the tasks needed to complete the project.
- 2. Break down large tasks into smaller activities.
- 3. Determine dependencies among different activities
- 4. Establish most likely estimates for the time durations necessary to complete the activities.

Chapter3: System Requirement Study

3.1 Study of current system

In the current business scenario businessmen and managers should keep note of all transactions and bills and other things on paper(ledger Book).

3.2 Problems and Weaknesses of current system

The current system is very time consuming as it needs to be done manually by the person on the paper.

As we know there are lots of problems with the manual entry system, some of the problems are given below:

Disturbance to bothBusinessmen and manager.

Possibility to misplace the data on the balance sheet.

Difficulty to large numbers of data like Invoice, deliveries, and etc.

Difficulty of analyzing all things at the end of year.

3.3 User Characteristics

There is one type of user dealing with this management system:

Manager

Managers can modify and view the old and new records, and keep an eye on the go on inventory.

3.4 Hardware and Software Requirements

Computers with minimum capacity:

Processor: Pentium 200MHz

RAM: 1 GB Disk: 4 GB

3.5 Software:

- Efficient Web browser
- Node and React libraries
- Express libraries

Chapter 4: System Requirements (SRS Document)

• Functional Requirements:

R.1. Authentication System

Description: User are valid or not

R.1.1 Login

Input: Username(Email), Password

Output: Directed to home page

R.1.2 Sign Up

Input: User's Name, Email, password.

Output: Register to website

R.2. Registration

R.2.1 Employee Entry

Input: EmployeeName, EmployeeID, EmployeeAddress, EmployeeGender, EmployeeContact, EmployeeEmail, EmployeePost.

Processes: All detail will be taken from the front-end then sent to the controller. It will process data then send Data-Base for storage purposes.

Output: Employee detail register in database

R.2.2 Vendor Entry

Input: VendorName, VendorID, VendorAddress, VendorContact, VendorEmail, VendorGender.

Processes: All detail will be taken from the front-end then sent to the controller. It will process data then send Data-Base for storage purposes.

Output: Vendor detail register in database.

R.2.3 Raw Entry

Input: RawID, MaterialName, Date, Price, Quantity, VendorID, Invoice Number, Cost Per Unit.

Processes: All detail will be taken from the front-end then sent to the controller. It will process data then send Data-Base for storage purposes.

Output: Data Store in database.

R.2.4 Product Entry

Input: ProductID,Date, Length, ProductType, EmployeeID.

Processes: All detail will be taken from the front-end then sent to the controller. It will process data then send Data-Base for storage purposes.

Output: Data Store in database.

R.3 Billing

Input: BillID, VendorName, Date, Price, Length, ProductName, InvoiceNumber etc.

Output: Billing Generation ,PDF Generation.

R.4 Purchase Inquiry

Input: Bill No.

Process: server will find Bill No from database then send Hole detail of that

transaction to the client side.

Output: Bill Details.

R.5 Raw Inquiry

Input: Material Name.

Output: Available Stock Information

R.6 Attendance

Input: EmployeeName, Date, Input etc.

Output: Attendance store in database

R.7 Product Inquiry

Input: ProductType.

Output: All information of that product

R.8 About Us

Input: Name, Email, Subject, Message.

Process: It takes data from the register user. When a user sends any query server direct page to the Emailjs. Then EmailJs will process and transfer to the register user.

Output: Query Report

• Non-functional Requirements:

1. Platform:

Both Windows and Unix versions of the software need to be developed.

2. Modification

A Website Database is well structured and programs are Reusable So We easily update the program.

3. Efficiency:

Minimal use of resources (memory, processor, disk, network)

4. Performance:

- a) Response Time
- b) Throughput (number of operations performed per second)

Chapter 5:- System Design

5.1 Use case Diagram:-

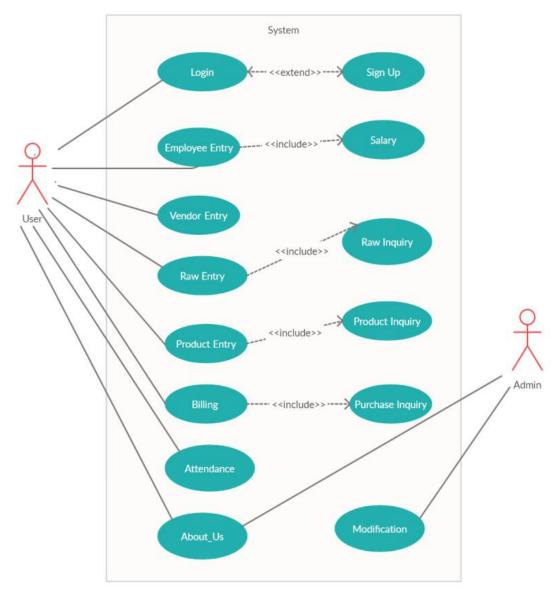


Fig 5.1 Use case Diagram System Design

5.2 Class Diagram:-

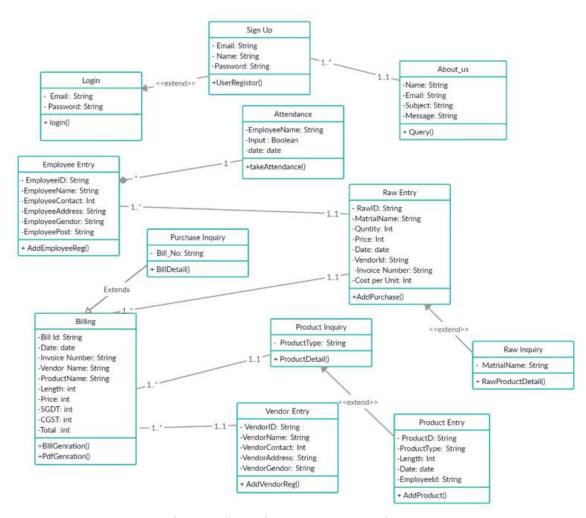
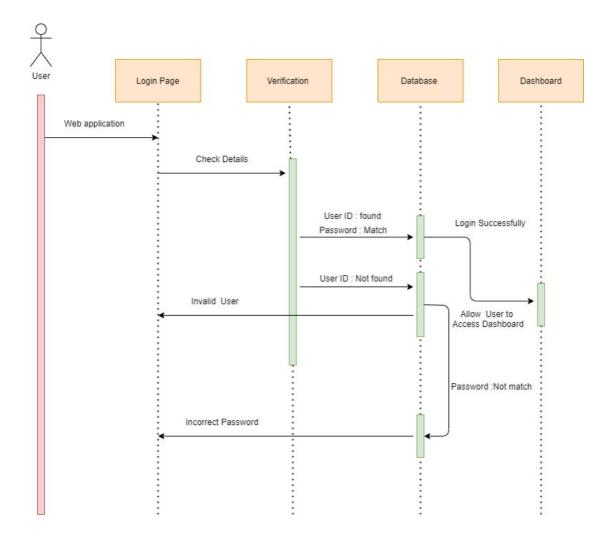


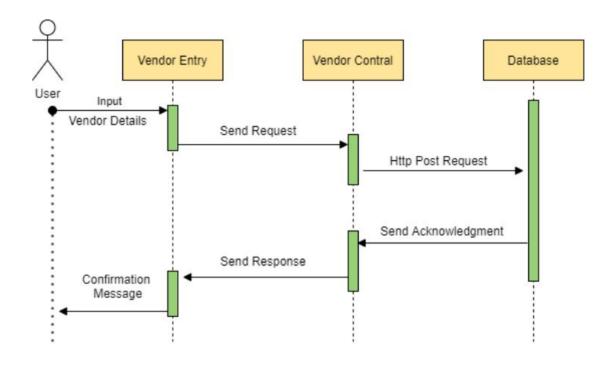
Fig 5.2 Class DiagramSystem Design

5.3 Sequence Diagram:-

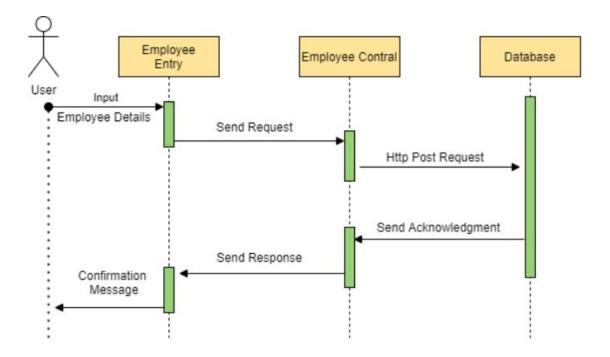
5.3.1 **Login**



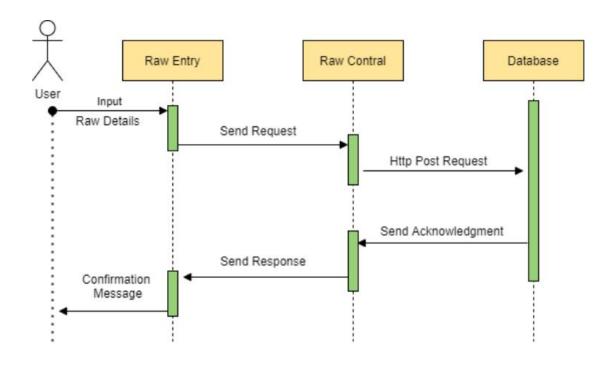
5.3.2 Employee Entry



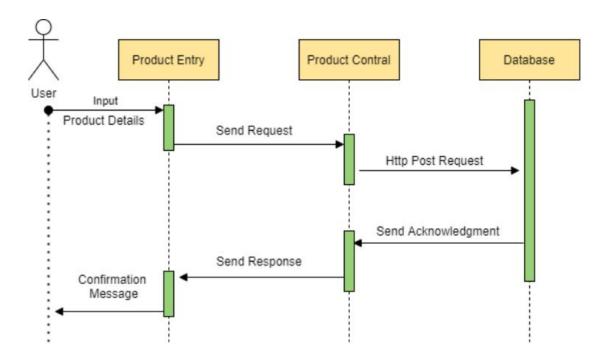
5.3.3 Vendor Entry



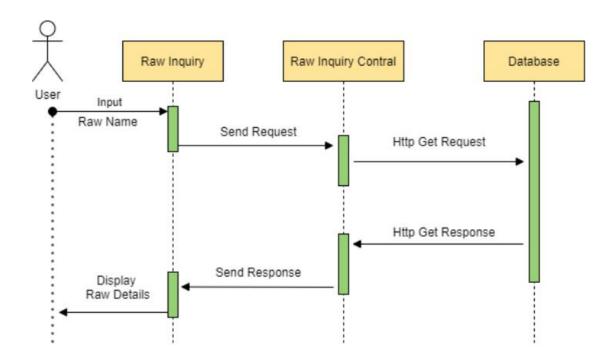
5.3.4 Raw Entry



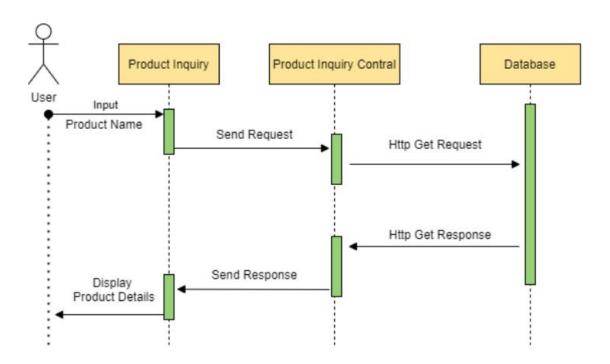
5.4.5 Product Entry



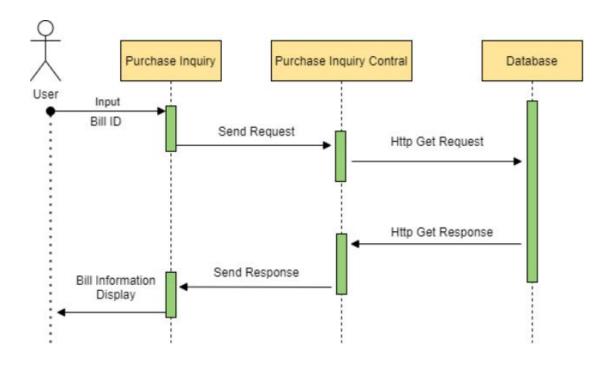
5.3.6 Raw Inquiry



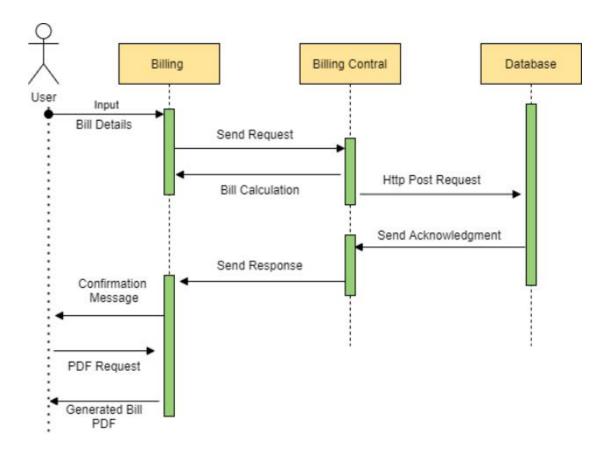
5.3.7 Product Inquiry



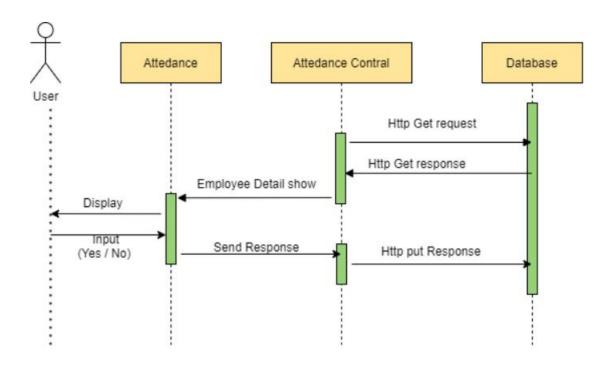
5.3.8 Purchase Inquiry



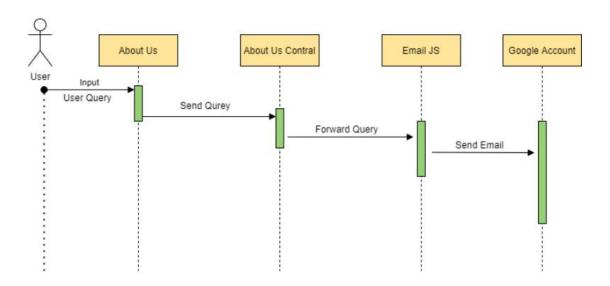
5.3.9 Billing



5.3.10 Attendance



5.3.11 About US



5.4 Schema Diagram

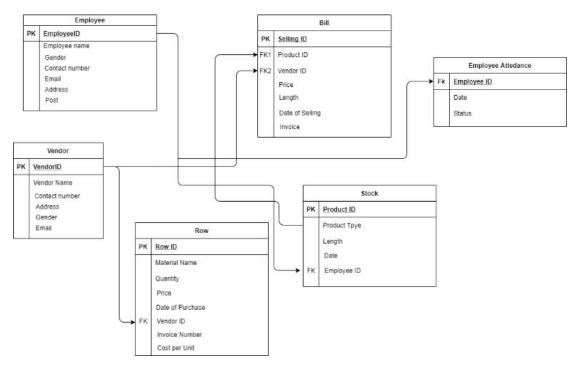


Fig. 5.4 Schema Diagram

5.5 Component Diagram

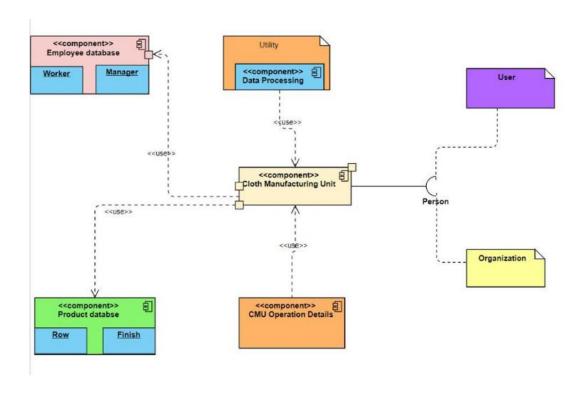


Fig. 5.5 Component Diagram

5.6 Deployment Diagram

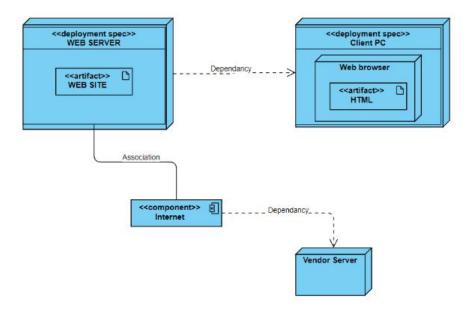


Fig. 5.6 Deployment Diagram

Chapter 6: Implementation Planning

• Implementation Environment:

6.1 VS Code Installation:-

Step 1: Download the VS Code Installer.

- 1. Open a browser window and navigate to the download page for windows at https://code.visualstudio.com.
- 2. Underneath the heading at the top download VS Code for 64 bit.

Step 2: Run the Installer Once you have chosen and downloaded an installer, simply run it by double-clicking on the downloaded file.

6.2 Install React

Using the create-react-app command

Instead of using webpack and babel you can install ReactJS more simply by installing create-react-app.

Step 1 - install create-react-app

Browse through the desktop and install the Create React App using command prompt as shown below –

C:\Users\Tutorialspoint>cd C:\Users\Tutorialspoint\Desktop\ C:\Users\Tutorialspoint\Desktop>npx create-react-app my-app

This will create a folder named my-app on the desktop and installs all the required files in it.

Step 2 - Delete all the source files

Browse through the src folder in the generated my-app folder and remove all the files in it as shown below –

C:\Users\Tutorialspoint\Desktop>cd my-app/src

C:\Users\Tutorialspoint\Desktop\my-app\src>del *

C:\Users\Tutorialspoint\Desktop\my-app\src*, Are you sure (Y/N)? y

Step 3 - Add files

Add files with names index.css and index.js in the src folder as –

C:\Users\Tutorialspoint\Desktop\my-app\src>type nul > index.css

C:\Users\Tutorialspoint\Desktop\my-app\src>type nul > index.js

In the index.js file add the following code

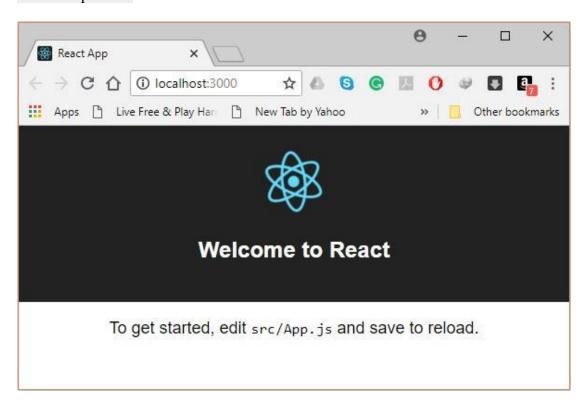
import React from 'react';

import ReactDOM from 'react-dom'; import './index.css';

Step 4 - Run the project

Finally, run the project using the start command.

npm start



6.3 Install nodejs.

Step-1: Downloading the Node.js '.msi' installer.

The first step to install Node.js on windows is to download the installer. Visit the official Node.js website i.e) https://nodejs.org/en/download/ and download the .msi file according to your system environment (32-bit & 64-bit). An MSI installer will be downloaded on your system.

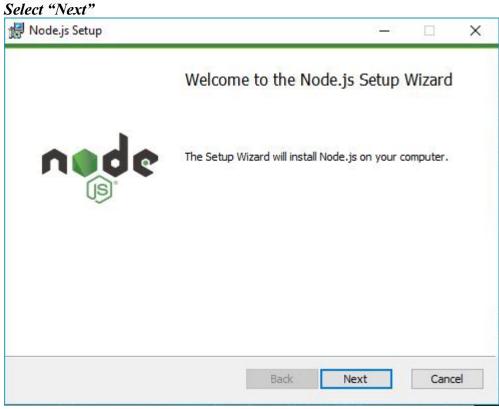
Step-2: Running the Node.js installer.

Now you need to install the node.js installer on your PC. You need to follow the following steps for the Node.js to be installed:-

• Double click on the .msi installer.

The Node.js Setup wizard will open.

• Welcome To Node.js Setup Wizard.



- After clicking "Next", End-User License Agreement (EULA) will open.
- Click next, finish.

Step3: Verify if Node is installed or note.

To check that node.js was completely installed on your system or not, you can run the following command in your command prompt or Windows Powershell and test it:-

C:\Users\Admin> node -v

```
Command Prompt

Microsoft Windows [Version 10.0.16299.547]
(c) 2017 Microsoft Corporation. All rights reserved.

C:\Users\Admin>node -v
v10.15.3

C:\Users\Admin>
```

If node.js was completely installed on your system, the command prompt will print the version of the node.js installed.

6.4 Installing Express.

Goto your current folder in CMD. and run above code.

\$ npm install --save express

Chapter 7: Software Testing

7.1 Introduction

Software testing is the process of testing the functionality and correctness of software. Software testing is defined as an activity to check whether the actual results match the expected results and to ensure that the software system is defect free.

7.2 Unit Testing

In this each module is tested individually .Criteria selected for identifying unit test modules is to identify modules that have core functionality implementation .Module could be an individual or procedure. The following is a list of functions for unit testing that will tested:

- Select the dataset.
- Apply Preprocessing.
- Build Individual models.
- Train classification model.
- Test classification model.

7.3 Integration testing

Integration testing integrates individual modules and is tested as a group .Integration testing takes as its input modules that have been unit tested ,groups them in larger aggregates ,applies tests defined in an integration test plan to those aggregates ,and delivers as its output the integrated system for testing.

7.4 Validation testing

The process of evaluating software during or at the end of the development process is to determine whether it satisfies specified requirements.

7.5 GUI Testing

GUI testing is the process of testing the system's Graphical User Interface of the Applicationunder Test. GUI testing involves checking the screens with the controls like menus, buttons, icons, and all types of bars - menu bar, dialog boxes, and windows, etc.

Chapter 8: User Manual

8. Implementation code:-

8.1 Setting React

Index.js

8.2 Setting Node

Server.js

```
mongoose = require('mongoose'),

config = require('./keys');

const express = require('express')

const PORT = 8000

let routes = require('./routes');

const cors = require('cors');

require('dotenv').config();

const app = express();
```

```
app.use(cors());
app.use(express.json());
mongoose.Promise = global.Promise;
mongoose.connect(config.DB, { useNewUrlParser: true } ).then(
  () => {console.log('Database is connected') },
  err => { console.log('Can not connect to the database'+ err)}
jwtSecret:"asdasdzxc"
console.log("hello user")
app.listen(PORT,()=>{
  console.log("server is running on",PORT)
require('./models/employee')
require('./models/vendor')
require('./models/row')
require('./models/stock')
require('./models/bill')
require('./models/post')
app.use(require('./routes/employee'))
app.use(require('./routes/vendor'))
app.use(require('./routes/row'))
app.use(require('./routes/stock'))
app.use(require('./routes/bill'))
```

```
app.use(require('./routes/post'))

const connection = mongoose.connection;

connection.once('open', () => {

    console.log("MongoDB database connected");

})

connection.on('error', (e) => console.log("error"));

app.use('/", routes);
```

8.3 Setting MongoDB

go to MongoDB webpage and login to account

then create new collection

copy name and key to your server code.

```
module.exports = {

DB:"mongodb+srv://kishanpatel:kishan@2000@cluster0.bvpti.mongodb.net/<dbname>?retryWrit es=true&w=majority",

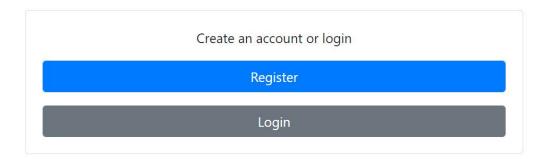
JWT_SECRET:"asdasdzxc"
}
```

8.4 DataBase Model

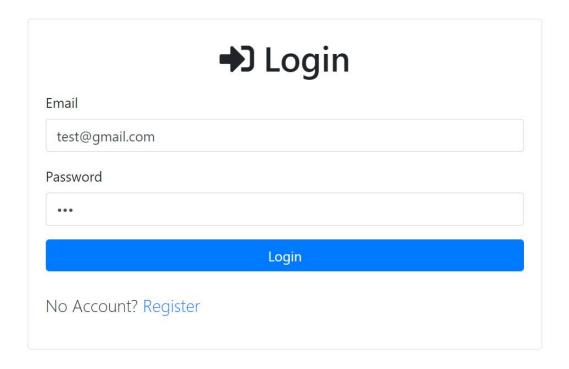
```
const mongoose = require('mongoose')
const {ObjectId} = mongoose.Schema.Types
const employeeSchema = new mongoose.Schema({
  EmployeeID:{
    type:String,
    required:true
  EmployeeName:{
    type:String,
    required:true
  EmployeeGender: {
    type:String,
    required:true
  E_price: {
    type:String,
    required:true
mongoose.model("Employee",employeeSchema)
```

Output:-

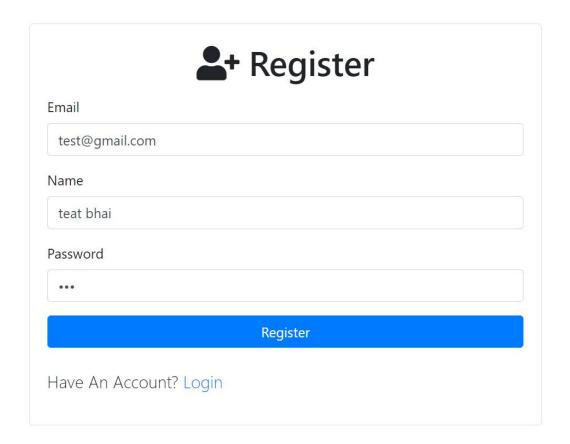
Login DashBoard



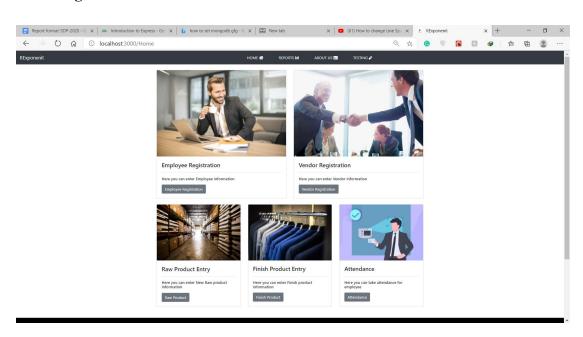
Login



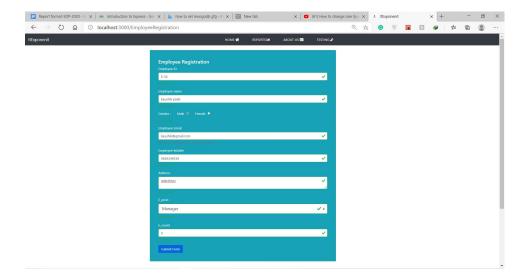
Signup



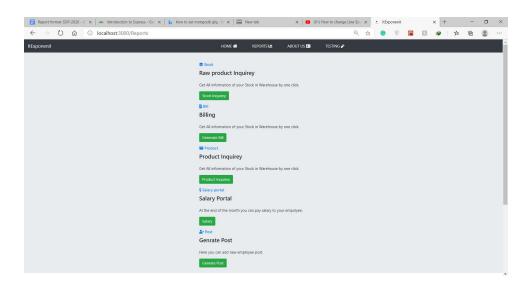
HomePage



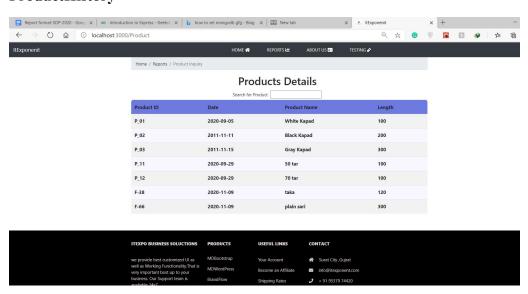
Employee Entry



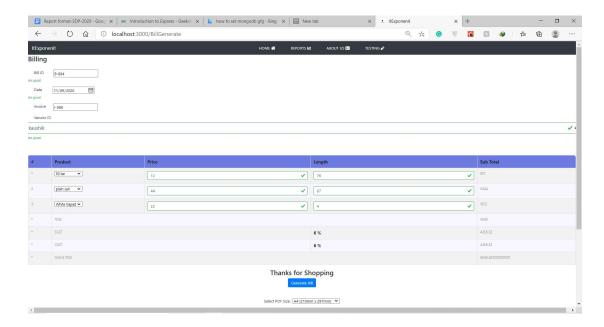
Reports



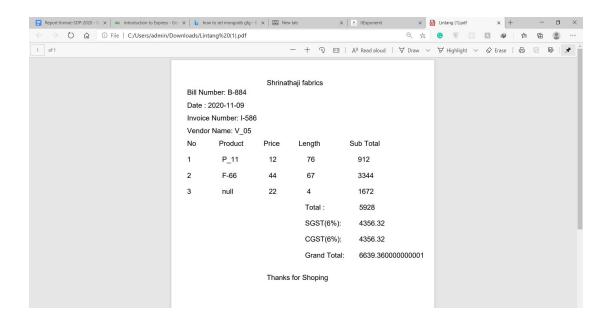
ProductHistory



Billing



Bill as PDF



And for other functionally refer this youtube link

https://youtu.be/JNOztb8GBsQ

Project ZIP(.rar) file.

https://drive.google.com/drive/folders/16nTptmPvTmHaAjw2Rqqpa7fLM8GD0986?usp=sharing

Chapter 9: Limitations and Future Enhancement

Limitations:-

- This system requires a strong connection between client and server.
- Require Good responsive Browser like microsoft edge and google chrome.

Future Enhancement:-

This system has an immensely boundless scope in future. It can be amended as and when requirement emerges, as it is versatile in terms of the extension. There are portals which can be further modified or generated such as GST return, balance Sheet can be extended and also make good Graphical User Interface.

Chapter 10: Conclusion

The anticipated outcome of this System is to make one get rid of the use of the traditional system of taking Entries manually with pen on paper. It can eliminate the error of data mismatch. It saves time and efforts of the manager to work on all Entry And reports.

.

References

https://www.npmjs.com/ for packages.

https://react-bootstrap.github.io/ React Bootstrap for frontend design.

https://www.emailjs.com/ for sending mail.

https://mdbootstrap.com/ for frontend design.

https://reactjs.org/React JS.

https://nodejs.org/ Node JS. https://www.mongodb.com/ mongoDB.