

Employee Registration Form Documentation

Overview

The **Employee Registration Form** is a React-based application using Material UI and Firebase Firestore for managing employee data. This document provides an overview of the implementation, including the UI components, Firebase integration, and form handling.

Features

- User-friendly registration form for employees
- Data validation and structured input fields
- Firestore database integration for storing employee details
- Success message display after form submission

Technologies Used

- **React**: Frontend framework
- **Material UI**: UI components
- **Firebase Firestore**: Database for storing employee records
- **Date Fns**: Date management library

Installation & Setup

Clone the repository:

```
git clone https://github.com/your-repo.git
```

1. `cd your-repo`
2. Install dependencies:
`npm install`
3. Configure Firebase:
 - Create a Firebase project
 - Set up Firestore database
 - Initialize Firebase in the project (`firebase.js`)
 - Enter your Firebase credentials in `firebase.js`

Firestore Configuration (`firebase.js`)

Create a `firebase.js` file and enter your Firebase credentials:

```
import { initializeApp } from 'firebase/app';
```

```
import { getFirestore } from 'firebase/firestore';

const firebaseConfig = {
  apiKey: "YOUR_API_KEY",
  authDomain: "YOUR_AUTH_DOMAIN",
  projectId: "YOUR_PROJECT_ID",
  storageBucket: "YOUR_STORAGE_BUCKET",
  messagingSenderId: "YOUR_MESSAGING_SENDER_ID",
  appId: "YOUR_APP_ID"
};

const app = initializeApp(firebaseConfig);
const db = getFirestore(app);

export { db };
```

Code Explanation

Component Imports

The form utilizes Material UI components (`TextField`, `Button`, `Grid`, etc.) and Firebase Firestore methods.

```
import React, { useState } from 'react';
import { Container, Box, Typography, TextField, MenuItem, Button, Grid, Alert } from
 '@mui/material';
import { DatePicker, LocalizationProvider } from '@mui/x-date-pickers';
import { AdapterDateFns } from '@mui/x-date-pickers/AdapterDateFns';
import { db, collection, addDoc } from './firebase';
```

State Management

The `useState` hook manages form input fields and handles changes dynamically.

```
const [formData, setFormData] = useState({
  firstName: "",
  lastName: "",
  email: "",
  phone: "",
  department: "",
  position: "",
  hireDate: null,
});
```

Handling Input Changes

Updates form values in response to user input.

```
const handleChange = (e) => {  
  setFormData({ ...formData, [e.target.name]: e.target.value });  
};
```

Handling Date Selection

Uses `DatePicker` for selecting the hire date.

```
const handleDateChange = (date) => {  
  setFormData({ ...formData, hireDate: date });  
};
```

Form Submission

Upon submission, the form data is sent to Firestore.

```
const handleSubmit = async (e) => {  
  e.preventDefault();  
  setSubmitted(true);  
  try {  
    await addDoc(collection(db, "employees"), formData);  
    setFormData({ firstName: "", lastName: "", email: "", phone: "", department: "", position: "",  
hireDate: null });  
  } catch (error) {  
    console.error("Error adding employee: ", error);  
  }  
};
```

UI Layout


The form consists of input fields structured in a grid layout.

- Name, Email, Phone Number
- Department Selection (`MenuItem` dropdown)
- Position Input
- Hire Date Picker
- Submit Button

Screenshots

Please fill in this field.

Employee Registration Form

First Name *	Last Name *
Email Address *	Phone Number *
Department * ▼	Position *
Hire Date 	

REGISTER EMPLOYEE

Employee Registration Form

First Name *

Rohit

Last Name *

Kumar

Email Address *

example@gmail.com

Phone Number *

9876543210

Department *

Human Resources
Information Technology
Sales
Finance
Marketing

Position *

EMPLOYEE

Employee Registration Form

First Name *

Rohit

Last Name *

Kumar

Email Address *

example@gmail.com

Phone Number *

9876543210

Department *

Information Technology

Position *

Software developer


Hire Date


02/14/2025



REGISTER EMPLOYEE

Employee Registration Form

 Employee registered successfully!

First Name *	Last Name *
Email Address *	Phone Number *
Department * ▼	Position *
Hire Date 	

REGISTER EMPLOYEE

Conclusion

This Employee Registration Form offers a simple and effective way to collect and store employee details in Firestore. The use of Material UI ensures a clean and responsive design, while Firebase provides a scalable backend solution.

For further enhancements, consider adding:

- Form validation for email and phone fields
- Improved error handling for Firestore operations
- Integration with authentication for secure access