

```
export default function contactReducer(state = [], action) {
  switch(action.type) {
    case 'ADD_CONTACT':
      // create a new array and push payload to the new array
      return [...state, action.payload];
    case 'REMOVE_CONTACT':
      // delete by email
      return state.filter(contact => contact.email !== action.payload);
    case 'CLEAR_CONTACTS':
      return [];
    default:
      return state;
  }
}
```

```
{type: 'ADD_CONTACT', payload: contact}
```

```
const rootReducer = combineReducers({
  "profile": profileReducer,
  "contacts": contactReducer
});
```

```
export default rootReducer;
```

```
const store = createStore(rootReducer
```

```
{
  profile: {
    avatar: 'banu.png',
    name: 'Banu Prakash'
  },
  contacts: []
}
```

State ✓

App.tsx

```
function mapDispatchToProps(dispatch) {
  return {
    addContact: contact => dispatch({type: 'ADD_CONTACT', payload: contact}),
    removeContact: email => dispatch({type: 'REMOVE_CONTACT', payload: email})
  }
}
```

```
export default connect(
  mapStateToProps,
  mapDispatchToProps
)(App);
```

```
function newContact() {
  let contact = {
    email,
    name
  };
  // send to REDUX
  props.addContact(contact);
}
```

```
Email : <input type="email" onChange={e => setEmail(e.target.value)} /> <br />
Name: <input type="text" onChange={e => setName(e.target.value)} /> <br />
<button type="button" onClick={newContact}> Add Contact</button>
```

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```
{
  profile: {
    avatar: 'banu.png',
    name: 'Banu Prakash'
  },
  contacts: []
}
```

State

App.tsx

```
{
  props.contactList.map(contact => <div key={contact.email}>
    {contact.email}, {contact.name}
    <button type="button" onClick={() => props.removeContact(contact.email)}>Remove</button>
  </div>)
}
```

```
function mapStateToProps(state) {
  return {
    contactList: state.contacts
  }
}
```

`{type: 'REMOVE_CONTACT', payload: email}`

State

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  switch(action.type) {  
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      return [...state, action.payload];  
    case 'REMOVE_CONTACT':  
      // remove by email  
      return state.filter(contact => contact.email !== action.payload);  
    case 'CLEAR_CONTACTS':  
      return [];  
    default:  
      return state;  
  }  
}
```

`{type: 'REMOVE_CONTACT', payload: email}`

`const store = createStore(rootReducer`

```
{  
  profile: {  
    avatar: 'banu.png',  
    name: 'Banu Prakash'  
  },  
  contacts: []  
}
```

State

`{type: 'REMOVE_CONTACT', payload: email}`

```
const rootReducer = combineReducers({  
  "profile": profileReducer,  
  "contacts": contactReducer  
});
```

`export default rootReducer;`

App.tsx

```
{  
  props.contactList.map(contact => <div key={contact.email}>  
    {contact.email}, {contact.name}  
    <button type="button" onClick={() => props.removeContact(contact.email)}>Remove</button>  
  </div>  
}
```

```
function mapDispatchToProps(dispatch) {  
  return {  
    addContact: contact => dispatch({type: 'ADD_CONTACT', payload: contact}),  
    removeContact: email => dispatch({type: 'REMOVE_CONTACT', payload: email})  
  }  
}
```