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Aim: To implement Redux for managing state in a React-based shopping cart application.

CODE:

Redux Slice (features/cartSlice.js):

```
import { createSlice } from '@reduxjs/toolkit';
```

```
const cartSlice = createSlice({  
  
  name: 'cart',  
  
  initialState: [],  
  
  reducers: {  
  
    addToCart: (state, action) => {  
  
      const item = action.payload;  
  
      const existing = state.find(i => i.id === item.id);  
  
      if (existing) existing.quantity += 1;  
  
      else state.push({ ...item, quantity: 1 });  
  
    }  
  
  }  
});
```

```

    },

    removeFromCart: (state, action) => {

        return state.filter(item => item.id !== action.payload);

    },

    updateQuantity: (state, action) => {

        const { id, quantity } = action.payload;

        const item = state.find(i => i.id === id);

        if (item) item.quantity = quantity;

    }

});

```

```

export const { addToCart, removeFromCart,
updateQuantity } = cartSlice.actions;

export default cartSlice.reducer;

```

Store (app/store.js):

```

import { configureStore } from '@reduxjs/toolkit';

import cartReducer from '../features/cartSlice';

```

```
const store = configureStore({  
  reducer: {  
    cart: cartReducer  
  }  
});  
  
export default store;
```