

## Create a Simple Counter using useReducer Hook.

The useReducer Hook is similar to the useState Hook.

We will create a counter with increment&decrement button by 1 and by 2.

We will use useReducer Hook to allows us manage mutiple state function to executed depending on different logic.

The useReducer hook has two argument, an reducer function that contains our custom state logic and the initialState.

We can call any custom state function using dispatch.

To use useReducer hook, we first need to import it from react

```
import { useReducer } from 'react';
```

So first let us create a initial value of our state. Our state variable mystate.

```
const initialState = { count: 0 };
```

Now we will create a state variable mystate using useReducer.

```
const [mystate, dispatch] = useReducer(reducer, initialState);
```

Here mystate is state variable and dispatch will be used to call the function.

Reducer will contain custom functions and we have already defined initialState of our variable.

Now Let us define our custom functions with reducer,

So we will create different action to be executed with different function, each of them can be called with dispatch depending on our requirement.

```
function reducer(state, action) {
  switch (action.type) {
    case 'increment1':
      return { count: state.count + 1 };
    case 'decrement1':
      return { count: state.count - 1 };
    case 'increment2':
      return { count: state.count + 2 };
    case 'decrement2':
      return { count: state.count - 2 };
    default:
      throw new Error();
  }
}
```

So here, we have switch statement, that has different functions to return us execution of different arithmetic operations.

Now we will simply use dispatch method to call for different action on click of different button.

```
<div>
  <div className="container">
    <div className="number">
      <p>Count: {mystate.count}</p>
    </div>
    <div className="allbuttons">
      <button class="button" onClick={() => dispatch({ type: 'increment1' })}>Increment by
1</button>
      <button class="button" onClick={() => dispatch({ type: 'decrement1' })}>Decrement by
1</button>
      <button class="button" onClick={() => dispatch({ type: 'increment2' })}>Increment by
2</button>
      <button class="button" onClick={() => dispatch({ type: 'decrement2' })}>Decrement by
2</button>
    </div>
  </div>
</div>
```

