TUGAS INDIVIDU

REDUX

Disusun sebagai

MATA KULIAH : PEMROGRAMAN BERBASIS FRAMEWORK

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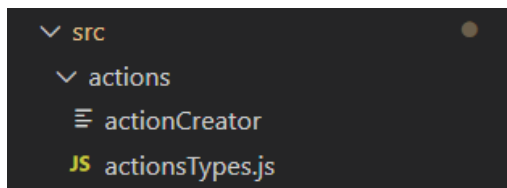PROGRAM STUDI D-IV TEKNIK INFORMATIKA

JURUSAN TEKNOLOGI INFORMASI

POLITEKNIK NEGERI MALANG

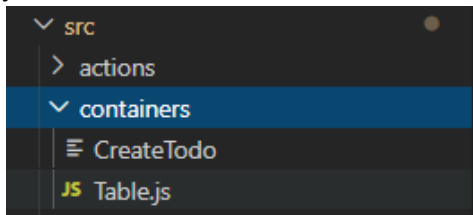2020

Praktikum :

1. Buat Folder dalam src yaitu Action

```
∨ src                                    ●
  ∨ actions
    ≡ actionCreator
    JS actionsTypes.js
```

2. Beri nama actionCreator

```
≡ actionCreator ✕    JS actionsTypes.js    ≡ CreateTodo    JS Table.js

src > actions > ≡ actionCreator
  1    import { ADD_TODO, REMOVE_TODO, TOGGLE_TODO, SET_VISIBI
  2    './actionsTypes'
  3
  4    let TodoId = 2
  5
  6    export const addTodo = text => ({
  7        type: ADD_TODO,
  8        id: TodoId++,
  9        text
 10    })
 11    |
 12    export const deleteTodo = (id) => ({
 13        type: REMOVE_TODO,
 14        id: id
 15    })
 16
 17    export const toggleTodo = (id) => ({
 18        type: TOGGLE_TODO,
 19        id: id
 20    })
 21
 22    export const setVisibilityFilter = filter => ({
 23        type: SET_VISIBILITY_FILTER,
 24        filter
 25    })
```

3. Masih dalam Folder Action buatlah file actionsTypes.js

```
≡ actionCreator    JS actionsTypes.js ✕    ≡ CreateTodo    JS Table.js    JS

src > actions > JS actionsTypes.js > [∅] SET_VISIBILITY_FILTER
  1    export const ADD_TODO = 'ADD_TODO'
  2    export const TOGGLE_TODO = 'TOGGLE_TODO'
  3    export const REMOVE_TODO = 'REMOVE_TODO'
  4    export const SHOW_ALL = 'SHOW_ALL'
  5    export const SHOW_COMPLETED = 'SHOW_COMPLETED'
  6    export const SHOW_ACTIVE = 'SHOW_ACTIVE'
  7    export const SET_VISIBILITY_FILTER = 'SET_VISIBILITY_FILTER'
```

4. Kemudian dalam folder src buatlah folder dengan nama containers dan buatlah file dengan judul CreateTodo


```
src > containers > ≡ CreateTodo
1   import React, { Component } from 'react'
2   import { connect } from 'react-redux'
3   import { addTodo } from '../actions/actionCreator'
4   import { bindActionCreators } from 'redux'
5
6   class CreateTodo extends Component {
7       constructor(props) {
8           super(props)
9           this.state = {
10              todotext: '',
11          }
12          this.onChangeTodoText = this.onChangeTodoText.bind(this)
13      }
14
15      onChangeTodoText(e) {
16          this.setState({
17              todotext: e.target.value
18          })
19      }
20
21      render() {
22          return (
23              <div className="form-group row">
24                  <div className="col-sm-10">
25                      <input onChange={this.onChangeTodoText} value={this.state.todotext} type="text" className="form-control" id="inputEmail3" placeholder="add todo here" />
26                      <button type="button" onClick={() => this.setState({ todotext: '' })} style={{ marginTop: "25px", marginRight: "15px" }} className="btn btn-danger">Cancel</button>
27                      <button type="button" onClick={() => { this.props.addTodo(this.state.todotext); this.setState({ todotext: '' }) }} style={{ marginTop: "25px" }} className="btn btn-success">Add Todo</button>
28                  </div>
29              </div>
30          );
31      }
32  }
33
34  const mapDispatchToProps = (dispatch) => {
35      return bindActionCreators({
36          addTodo
37      }, dispatch)
38  }
39
40  export default connect(null, mapDispatchToProps)(CreateTodo)
```

5. Masih dalam folder containers buatlah file dengan judul Table.js

```javascript
 1   import React, { Component } from "react";
 2   import { connect } from "react-redux";
 3   import {
 4     deleteTodo,
 5     toggleTodo,
 6     setVisibilityFilter
 7   } from "../actions/actionCreator";
 8   import { SHOW_ALL, SHOW_COMPLETED, SHOW_ACTIVE } from "../actions/actionsTypes.js";
 9   import { bindActionCreators } from "redux";
10
11   class Table extends Component {
12     render() {
13       return (
14         <div className="col-lg-10 offset-lg-1 col-md-10 col-sm-12 col-xs-12">
15           <nav style={{ marginTop: "60px" }}>
16             <ol className="breadcrumb">
17               <li
18                 className={"breadcrumb-item "+ (this.props.visibilityFilter === SHOW_ALL ? 'active' : '') }
19                 onClick={() => this.props.setVisibilityFilter(SHOW_ALL)}
20               >
21                 All
22               </li>
23               <li
24                 className={"breadcrumb-item "+ (this.props.visibilityFilter === SHOW_COMPLETED ? 'active' : '')
25                 onClick={() => this.props.setVisibilityFilter(SHOW_COMPLETED)}
26               >
27                 Completed
28               </li>
29               <li
30                 className={"breadcrumb-item "+ (this.props.visibilityFilter === SHOW_ACTIVE ? 'active' : '') }
31                 onClick={() => this.props.setVisibilityFilter(SHOW_ACTIVE)}
32               >
33                 Active
34               </li>
35             </ol>
36           </nav>
37           {this.props.todos.length !== 0 ? (
38             <table
39               style={{ marginTop: "60px" }}
40               className="table table-hover table-dark"
41             >
42               <thead>
43                 <tr>
44                   <th scope="col">Todos</th>
```

```
45                    <th scope="col">Actions</th>
46                  </tr>
47                </thead>
48                <tbody>
49                  {this.props.todos.map(todo => (
50                    <tr key={todo.id}>
51                      <td
52                        style={{
53                          textDecoration: todo.completed ? "line-through" : "none"
54                        }}
55                      >
56                        {todo.text} {todo.completed === true ? "(completed)" : ""}
57                      </td>
58                      <td>
59                        <span
60                          className="fas fa-minus-circle"
61                          onClick={() => this.props.deleteTodo(todo.id)}
62                          style={{
63                            color: "white",
64                            fontSize: "20pt",
65                            marginRight: "20px"
66                          }}
67                        />
68                        <span
69                          className="fas fa-check-circle"
70                          onClick={() => this.props.toggleTodo(todo.id)}
71                          style={{ color: "white", fontSize: "20pt" }}
72                        />
73                      </td>
74                    </tr>
75                  ))}
76                </tbody>
77              </table>
78            ) : (
79              <div
80                style={{ marginTop: "50px" }}
81                className="col-lg-10 col-md-10 col-xs-12 col-sm-12 offset-lg-1"
82              >
83                <div className="alert alert-danger" role="alert">
84                  Todo List is empty or Filter results show no results
85                </div>
86              </div>
87            )}{" "}
88          </div>
```
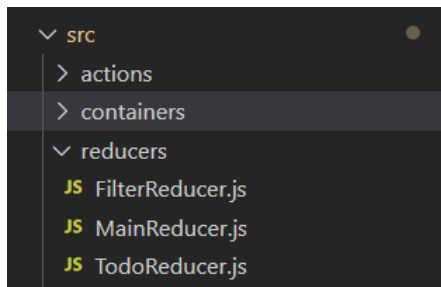
```
                </div>
            );
        }
    }

    const getVisibleTodos = (todos, filter) => {
        switch (filter) {
            case SHOW_ALL:
                return todos;
            case SHOW_COMPLETED:
                return todos.filter(t => t.completed);
            case SHOW_ACTIVE:
                return todos.filter(t => !t.completed);
            default:
                throw new Error("Unknown filter: " + filter);
        }
    };

    const mapStateToProps = state => {
        return { todos: getVisibleTodos(state.todos, state.visibilityFilter),
            visibilityFilter: state.visibilityFilter
        };
    };

    const mapDispatchToProps = dispatch => {
        return bindActionCreators(
            {
                deleteTodo,
                toggleTodo,
                setVisibilityFilter
            },
            dispatch
        );
    };

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

6. Edit index.js dengan source code berikut ini


```
import React from 'react';
import ReactDOM from 'react-dom';
import { Provider } from 'react-redux'
import { createStore, compose } from 'redux'
import MainReducer from './reducers/MainReducer'
import App from './App';
import * as serviceWorker from './serviceWorker';

const store = compose(window.devToolsExtension ? window.devToolsExtension() : f => f)(createStore)(MainReducer)

ReactDOM.render(<Provider store={store}>
<App />
</Provider>
, document.getElementById('root'));
serviceWorker.register();
```

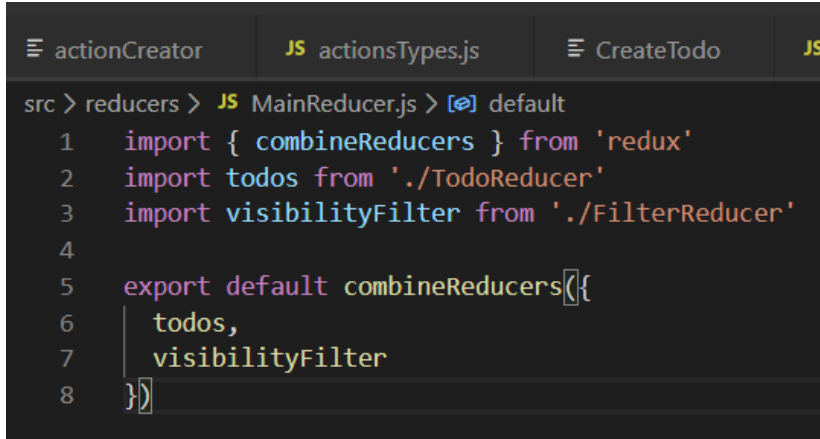7. Buat folder dalam src dengan nama reducers dan beri nama file FilterReducer.js dan ketikkan program dibawah ini :

actionCreator   JS actionsTypes.js   CreateTodo   JS Table.js   JS index.js

src > reducers > JS FilterReducer.js > [∅] visibilityFilter

```js
1  import {SHOW_ALL,SET_VISIBILITY_FILTER} from "../actions/actionsTypes";
2
3  const visibilityFilter = (state = SHOW_ALL, action) => {
4    switch (action.type) {
5      case SET_VISIBILITY_FILTER:
6        return action.filter;
7      default:
8        return state;
9    }
10  };
11
12  export default visibilityFilter;
```

8. Masih didalam folder reducers buatlah file dengan namaTodoReducer.js

actionCreator   JS actionsTypes.js   CreateTodo   JS Table.js   JS index.js

src > reducers > JS TodoReducer.js > [∅] TodoReducer > ⊘ state.map() callback

```js
1  import { ADD_TODO, REMOVE_TODO, TOGGLE_TODO} from '../actions/actionsTypes'
2
3  const INITIAL_DATA = []
4
5  const TodoReducer = (state=INITIAL_DATA, action) => {
6    switch (action.type){
7      case ADD_TODO:
8      return [
9        ...state,{
10          id: action.id,
11          text: action.text,
12          completed: false,
13        }
14      ]
15      case TOGGLE_TODO:
16      return state.map(todo =>
17      (todo.id === action.id)
18        ? {...todo, completed: !todo.completed}
19        : todo
20      )
21      case REMOVE_TODO:
22      const numIndex = parseInt(action.id)
23      return state.filter(todo => todo.id !== numIndex);
24      default:
25      return state
26    }
27  }
28
29  export default TodoReducer
```

9. Buat file dengan nama MainReducer.js dan simpan

```
actionCreator        JS actionsTypes.js        CreateTodo        JS

src > reducers > JS MainReducer.js > [∅] default
    1    import { combineReducers } from 'redux'
    2    import todos from './TodoReducer'
    3    import visibilityFilter from './FilterReducer'
    4
    5    export default combineReducers({
    6      todos,
    7      visibilityFilter
    8    })
```

10. Running semua program dengan npm start dan liat hasilnya dan laporkan didalam laporan