

/db/dosen.json

```
Pertemuan-3 > db > {} dosen.json > ...
1  [
2    { "id": "1", "name": "Slamet", "max_sks": 12 },
3    { "id": "2", "name": "Tini", "max_sks": 10 },
4    { "id": "3", "name": "Udin", "max_sks": 14 },
5    { "id": "4", "name": "Vina", "max_sks": 16 },
6    { "id": "5", "name": "Wawan", "max_sks": 8 }
7 ]
```

/db/matakuliah.json

```
Pertemuan-3 > db > {} matakuliah.json > ...
1  [
2    { "id": "1", "name": "Algoritma dan Pemrograman", "skls": 3 },
3    { "id": "2", "name": "Basis Data", "skls": 3 },
4    { "id": "3", "name": "Jaringan Komputer", "skls": 2 }
5 ]
```

/db/mahasiswa.json

```
Pertemuan-3 > db > {} mahasiswa.json > ...
1  [
2    { "id": "1", "name": "Andi", "nim": "M001", "max_sks": 18 },
3    { "id": "2", "name": "Budi", "nim": "M002", "max_sks": 20 },
4    { "id": "3", "name": "Citra", "nim": "M003", "max_sks": 22 },
5    { "id": "4", "name": "Dina", "nim": "M004", "max_sks": 18 },
6    { "id": "5", "name": "Eko", "nim": "M005", "max_sks": 24 },
7    { "id": "6", "name": "Fajar", "nim": "M006", "max_sks": 21 },
8    { "id": "7", "name": "Gita", "nim": "M007", "max_sks": 20 },
9    { "id": "8", "name": "Hani", "nim": "M008", "max_sks": 18 },
10   { "id": "9", "name": "Iwan", "nim": "M009", "max_sks": 20 },
11   { "id": "10", "name": "Joko", "nim": "M010", "max_sks": 18 },
12   { "id": "11", "name": "Kiki", "nim": "M011", "max_sks": 24 },
13   { "id": "12", "name": "Lia", "nim": "M012", "max_sks": 20 },
14   { "id": "13", "name": "Maya", "nim": "M013", "max_sks": 18 },
15   { "id": "14", "name": "Nina", "nim": "M014", "max_sks": 22 },
16   { "id": "15", "name": "Oki", "nim": "M015", "max_sks": 20 },
17   { "id": "16", "name": "Putri", "nim": "M016", "max_sks": 18 },
18   { "id": "17", "name": "Qila", "nim": "M017", "max_sks": 18 },
19   { "id": "18", "name": "Rudi", "nim": "M018", "max_sks": 21 },
20   { "id": "19", "name": "Salsa", "nim": "M019", "max_sks": 18 },
21   { "id": "20", "name": "Tino", "nim": "M020", "max_sks": 18 }
22 ]
```

/db/kelas.json

```
Pertemuan-3 > db > {} kelas.json > ...
1  [
2    {
3      "id": "1",
4      "mata_kuliah_id": "1",
5      "dosen_id": "1",
6      "mahasiswa_ids": ["1", "2", "3", "4", "5"]
7    }
8 ]
```

/src/Pages/Layouts/Components>Select.jsx

```
Pertemuan-3 > src > Pages > Layouts > Components > Select.jsx > ...
1  const base =
2    "border rounded w-full focus:outline-none focus:ring-2 focus:ring-blue-500";
3
4  const sizeVariants = {
5    sm: "px-2 py-1 text-sm",
6    md: "px-3 py-2 text-sm",
7    lg: "px-4 py-2 text-base",
8  };
9
10 const Select = ({ children, className = "", size = "md", ...props }) => {
11   return (
12     <select
13       className={`${base} ${sizeVariants[size]} ${className}`}
14       {...props}
15     >
16       {children}
17     </select>
18   );
19 };
20
21 export default Select;
```

/src/Pages/Layouts/Utils/Apis/DosenApi.js

```
Pertemuan-3 > src > Pages > Layouts > Utils > Apis > DosenApi.js > ...
1  import axios from "@/Pages/Layouts/Utils/AxiosInstance";
2
3 // Ambil semua dosen
4 export const getAllDosen = () => axios.get("/dosen");
5
6 // Ambil 1 dosen
7 export const getDosen = (id) => axios.get(`/dosen/${id}`);
8
9 // Tambah dosen
10 export const storeDosen = (data) => axios.post("/dosen", data);
11
12 // Update dosen
13 export const updateDosen = (id, data) => axios.put(`/dosen/${id}`, data);
14
15 // Hapus dosen
16 export const deleteDosen = (id) => axios.delete(`/dosen/${id}`);
```

/src/Pages/Layouts/Utils/Apis/KelasApi.js

```
Pertemuan-3 > src > Pages > Layouts > Utils > Apis > KelasApi.js > ...
1  import axios from "@/Pages/Layouts/Utils/AxiosInstance";
2
3 // Ambil semua kelas
4 export const getAllKelas = () => axios.get("/kelas");
5
6 // Ambil 1 kelas
7 export const getKelas = (id) => axios.get(`/kelas/${id}`);
8
9 // Tambah kelas baru
10 export const storeKelas = (data) => axios.post("/kelas", data);
11
12 // Update kelas
13 export const updateKelas = (id, data) => axios.put(`/kelas/${id}`, data);
14
15 // Hapus kelas
16 export const deleteKelas = (id) => axios.delete(`/kelas/${id}`);
```

## /src/Pages/Layouts/Utils/apis/MataKuliahApi.js

```
Pertemuan-3 > src > Pages > Layouts > Utils > Apis > JS MataKuliahApi.js > ...
1 import axios from "@/Pages/Layouts/Utils/AxiosInstance";
2
3 // Ambil semua mata kuliah
4 export const getAllMataKuliah = () => axios.get("/matakuliah");
5
6 // Ambil satu mata kuliah
7 export const getMataKuliah = (id) => axios.get(`/matakuliah/${id}`);
8
9 // Tambah mata kuliah
10 export const storeMataKuliah = (data) => axios.post("/matakuliah", data);
11
12 // Update mata kuliah
13 export const updateMataKuliah = (id, data) => axios.put(`/matakuliah/${id}`, data);
14
15 // Hapus mata kuliah
16 export const deleteMataKuliah = (id) => axios.delete(`/matakuliah/${id}`);
```

## /src/Pages/Layouts/Components/Sidebar.jsx

```
Pertemuan-3 > src > Pages > Layouts > Components > Sidebar.jsx > Sidebar
1 import { NavLink } from "react-router-dom";
2 import { useAuthStateContext } from "@/Pages/Layouts/Utils/Context/AuthContext";
3
4 const Sidebar = () => {
5   const { user } = useAuthStateContext();
6
7   if (!user) return null;
8
9   return (
10     <aside className="bg-blue-800 text-white min-h-screen transition-all duration-300 w-20 lg:w-64">
11       <div className="p-4 border-b border-blue-700">
12         <span className="text-2xl font-bold hidden lg:block">Admin</span>
13       </div>
14
15       <nav className="p-4 space-y-2">
16         {/* Menu Dashboard */}
17         {user.permission?.includes("dashboard.page") && (
18           <NavLink
19             to="/admin/dashboard"
20             activeClassName={({ isActive }) =>
21               `flex items-center space-x-2 px-4 py-2 rounded ${
22                 isActive ? "bg-blue-700" : "hover:bg-blue-700"
23               }`}
24           >
25             <span>Dashboard</span>
26             <span className="menu-text hidden lg:inline">Dashboard</span>
27           </NavLink>
28         )}
29
30         {/* Menu Mahasiswa */}
31         {user.permission?.includes("mahasiswa.page") && (
32           <NavLink
33             to="/admin/mahasiswa"
34             activeClassName={({ isActive }) =>
35               `flex items-center space-x-2 px-4 py-2 rounded ${
36                 isActive ? "bg-blue-700" : "hover:bg-blue-700"
37               }`}
38           >
39             <span>Mahasiswa</span>
40             <span className="menu-text hidden lg:inline">Mahasiswa</span>
41           </NavLink>
42         )}
43
44       );
45
46       {/* Menu Rencana Studi */}
47       {user.permission?.includes("rencana-studi.page") && (
48         <NavLink
49           to="/admin/rencana-studi"
50           activeClassName={({ isActive }) =>
51             `flex items-center space-x-2 px-4 py-2 rounded ${
52               isActive ? "bg-blue-700" : "hover:bg-blue-700"
53             }`}
54         >
55           <span>Rencana Studi</span>
56           <span className="menu-text hidden lg:inline">Rencana Studi</span>
57         </NavLink>
58       )}
59     );
60   </nav>
61   </aside>
62 );
63 };
64
65 export default Sidebar;
```

## /src/Pages/Admin/RencanaStudi.jsx

```
Pertemuan-3 > src > Pages > Admin > RencanaStudi.jsx ...
1 import { useEffect, useState } from "react";
2 import Card from "@/Pages/Layouts/Components/Card";
3 import Heading from "@/Pages/Layouts/Components/Heading";
4 import Button from "@/Pages/Layouts/Components/Button";
5 import { useAuthStateContext } from "@/Pages/Layouts/Utils/Context/AuthContext";
6 import { toastError, toastSuccess } from "@/Pages/Layouts/Utils/Helpers/ToastHelpers";
7 import { confirmDelete } from "@/Pages/Layouts/Utils/Helpers/SwalHelpers";
8 import TableRencanaStudi from "./TableRencanaStudi";
9 import ModalRencanaStudi from "./ModalRencanaStudi";
10 import { getAllMahasiswa } from "@/Pages/Layouts/Utils/Apis/MahasiswaApi";
11
12 // Kelas
13 import {
14   getAllKelas,
15   storeKelas,
16   updateKelas,
17   deleteKelas,
18 } from "@/Pages/Layouts/Utils/Apis/KelasApi";
19
20 // Dosen
21 import { getAllDosen } from "@/Pages/Layouts/Utils/Apis/DosenApi";
22
23 // Mata Kuliah
24 import { getAllMataKuliah } from "@/Pages/Layouts/Utils/Apis/MataKuliahApi";
25
26 const RencanaStudi = () => {
27   const { user } = useAuthStateContext();
28
29   // ===== STATE DATA =====
30   const [kelas, setKelas] = useState([]);
31   const [dosen, setDosen] = useState([]);
32   const [mahasiswa, setMahasiswa] = useState([]);
33   const [mataKuliah, setMataKuliah] = useState([]);
34
35   // ===== STATE UI =====
36   const [selectedMhs, setSelectedMhs] = useState({});
37   const [selectedDsn, setSelectedDsn] = useState({});
38   const [isModalOpen, setIsModalOpen] = useState(false);
39   const [form, setForm] = useState({ mata_kuliah_id: "", dosen_id: "" });
40
41   // ===== FETCH DATA =====
42   useEffect(() => {
43     fetchData();
44   }, []);
45
```

```
46   const fetchData = async () => {
47     try {
48       const [resKelas, resDosen, resMahasiswa, resMataKuliah] =
49         await Promise.all([
50           getAllKelas(),
51           getAllDosen(),
52           getAllMahasiswa(),
53           getAllMataKuliah(),
54         ]);
55
56       setKelas(resKelas.data);
57       setDosen(resDosen.data);
58       setMahasiswa(resMahasiswa.data);
59       setMataKuliah(resMataKuliah.data);
60     } catch (error) {
61       console.error(error);
62       toastError("Gagal mengambil data rencana studi");
63     }
64   };
65
66   // ===== FILTER MATA KULIAH =====
67   const mataKuliahSudahDipakai = kelas.map((k) => k.mata_kuliah_id);
68   const mataKuliahBelumAdaKelas = mataKuliah.filter(
69     (m) => !mataKuliahSudahDipakai.includes(m.id)
70   );
71
72   // ===== UTILITIES SKS =====
73   const getMaxSks = (id) =>
74     mahasiswa.find((m) => m.id === id)?.max_sks || 0;
75
76   const getDosenMaxSks = (id) =>
77     dosen.find((d) => d.id === id)?.max_sks || 0;
78
79   // ===== OPEN ADD MODAL =====
80   const openAddModal = () => {
81     setForm({ mata_kuliah_id: "", dosen_id: "" });
82     setIsModalOpen(true);
83   };
84
```

```

85 // ===== SUBMIT TAMBAH KELAS =====
86 const handleSubmit = async (e) => {
87   e.preventDefault();
88
89   if (!form.mata_kuliah_id || !form.dosen_id) {
90     toastError("Form tidak lengkap");
91     return;
92   }
93
94   await storeKelas({
95     ...form,
96     mahasiswa_ids: [],
97   });
98
99   setIsModalOpen(false);
100  toastSuccess("Kelas ditambahkan");
101  fetchData();
102};
103
104 // ===== HANDLE CHANGE FORM =====
105 const handleChange = (e) => {
106   setForm({
107     ...form,
108     [e.target.name]: e.target.value,
109   });
110 };
111
112 // ===== TAMBAH MAHASISWA =====
113 const handleAddMahasiswa = async (kelasItem, mhsId) => {
114   if (!mhsId) return;
115
116   const matkul = mataKuliah.find(
117     (m) => m.id === kelasItem.mata_kuliah_id
118   );
119   const sks = matkul?.sks || 0;
120
121   const totalSksMahasiswa = kelas
122     .filter((k) => k.mahasiswa_ids.includes(mhsId))
123     .map(
124       (k) =>
125         mataKuliah.find((m) => m.id === k.mata_kuliah_id)?.sks || 0
126     )
127     .reduce((acc, curr) => acc + curr, 0);
128
129   const maxSks = getMaxSks(mhsId);
130
131   if (totalSksMahasiswa + sks > maxSks) {
132     toastError(`SKS melebihi batas maksimal (${maxSks})`);
133     return;
134   }
135
136   if (kelasItem.mahasiswa_ids.includes(mhsId)) {
137     toastError("Mahasiswa sudah terdaftar");
138     return;
139   }
140
141   const updated = {
142     ...kelasItem,
143     mahasiswa_ids: [...kelasItem.mahasiswa_ids, mhsId],
144   };
145
146   await updateKelas(kelasItem.id, updated);
147   toastSuccess("Mahasiswa berhasil ditambahkan");
148
149   setSelectedMhs((prev) => ({ ...prev, [kelasItem.id]: "" }));
150   fetchData();
151 };
152

```

```

153 // ===== HAPUS MAHASISWA =====
154 const handleDeleteMahasiswa = async (kelasItem, mhsId) => {
155   const updated = {
156     ...kelasItem,
157     mahasiswa_ids: kelasItem.mahasiswa_ids.filter((id) => id !== mhsId),
158   };
159
160   await updateKelas(kelasItem.id, updated);
161   toastSuccess("Mahasiswa dihapus");
162   fetchData();
163 };
164
165 // ===== GANTI DOSEN =====
166 const handleChangeDosen = async (kelasItem) => {
167   const dsnId = selectedDsn[kelasItem.id];
168   if (!dsnId) return;
169
170   const totalSksDosen = kelas
171     .filter((k) => k.dosen_id === dsnId)
172     .map(
173       (k) =>
174         mataKuliah.find((m) => m.id === k.mata_kuliah_id)?.sks || 0
175     )
176     .reduce((acc, curr) => acc + curr, 0);
177
178   const kelasSks =
179     mataKuliah.find((m) => m.id === kelasItem.mata_kuliah_id)?.sks || 0;
180
181   const maxSks = getDosenMaxSks(dsnId);
182
183   if (totalSksDosen + kelasSks > maxSks) {
184     toastError(`Dosen melebihi batas maksimal SKS (${maxSks})`);
185     return;
186   }
187
188   await updateKelas(kelasItem.id, { ...kelasItem, dosen_id: dsnId });
189   toastSuccess("Dosen diperbarui");
190   fetchData();
191 };
192
193 // ===== HAPUS KELAS =====
194 const handleDeleteKelas = async (kelasId) => {
195   confirmDelete(async () => {
196     await deleteKelas(kelasId);
197     toastSuccess("Kelas dihapus");
198     fetchData();
199   });
200 };
201
202 // ===== RENDER =====
203 return [
204   <>
205   <Card>
206     <div className="flex justify-between items-center mb-4">
207       <Heading as="h2">Rencana Studi</Heading>
208
209       {user.permission?.includes("rencana-studi.page") && (
210         <Button onClick={openAddModal}>
211           + Tambah Kelas
212         </Button>
213       )}
214     </div>
215
216     <TableRencanaStudi
217       kelas={kelas}
218       mahasiswa={mahasiswa}
219       dosen={dosen}
220       mataKuliah={mataKuliah}
221       selectedMhs={selectedMhs}
222       setSelectedMhs={setSelectedMhs}
223       selectedDsn={selectedDsn}
224       setSelectedDsn={setSelectedDsn}
225       handleAddMahasiswa={handleAddMahasiswa}
226       handleDeleteMahasiswa={handleDeleteMahasiswa}
227       handleChangeDosen={handleChangeDosen}
228       handleDeleteKelas={handleDeleteKelas}
229     />
230   </Card>

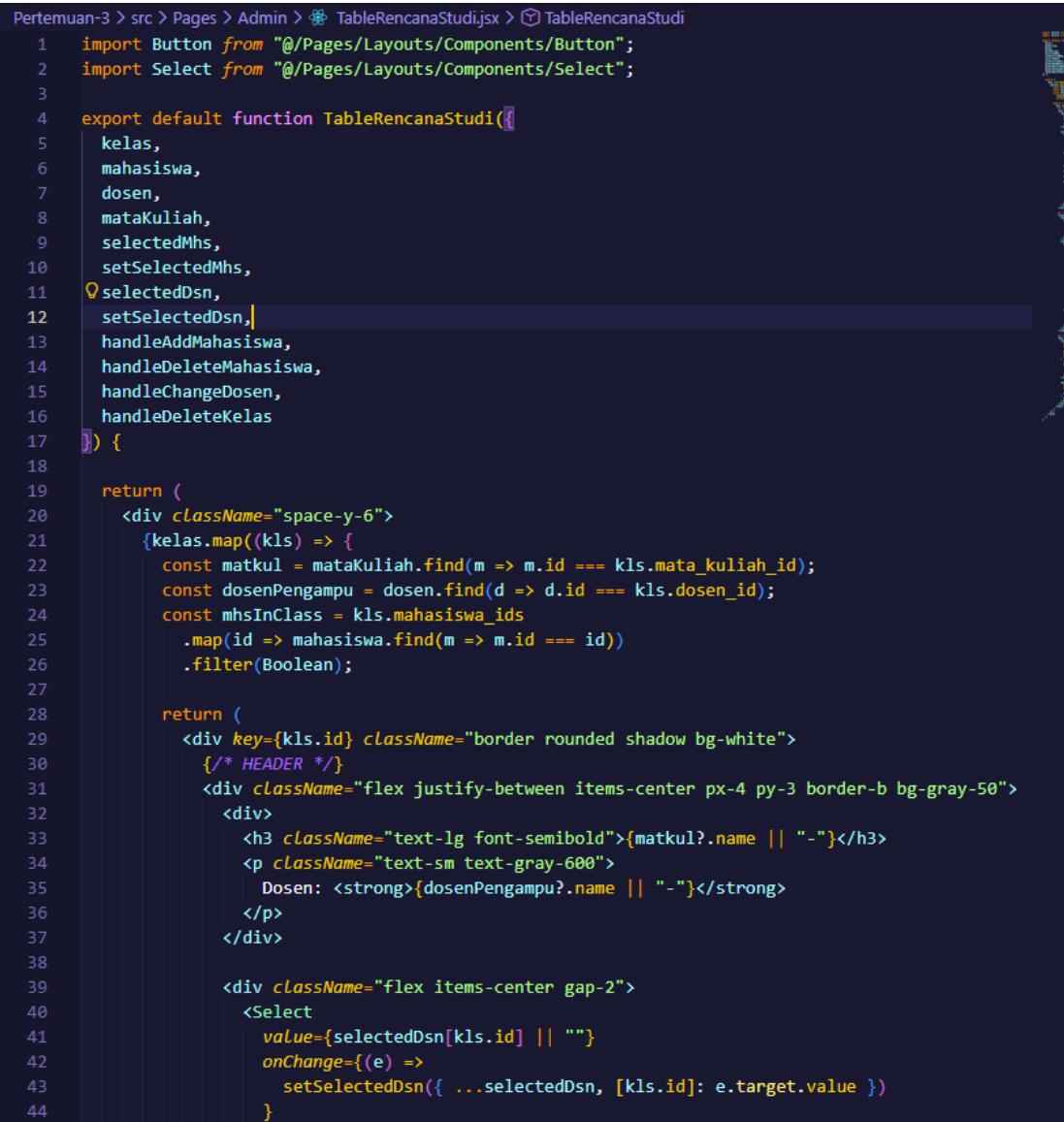
```

```

231     <ModalRencanaStudi
232       isOpen={isModalOpen}
233       onClose={() => setIsModalOpen(false)}
234       onChange={handleChange}
235       onSubmit={handleSubmit}
236       form={form}
237       dosen={dosen}
238       mataKuliah={mataKuliahBelumAdaKelas}
239     />
240   );
241 );
242 };
243
244 export default RencanaStudi;
245

```

/src/Pages/Admin/TableRencanaStudi.jsx



```

Pertemuan-3 > src > Pages > Admin > TableRencanaStudi.jsx > TableRencanaStudi
1 import Button from "@/Pages/Layouts/Components/Button";
2 import Select from "@/Pages/Layouts/Components/Select";
3
4 export default function TableRencanaStudi([
5   kelas,
6   mahasiswa,
7   dosen,
8   mataKuliah,
9   selectedMhs,
10  setSelectedMhs,
11  selectedDsn,
12  setSelectedDsn,
13  handleAddMahasiswa,
14  handleDeleteMahasiswa,
15  handleChangeDosen,
16  handleDeleteKelas
17 ]) {
18
19   return (
20     <div className="space-y-6">
21       {kelas.map((cls) => {
22         const matkul = mataKuliah.find(m => m.id === cls.mata_kuliah_id);
23         const dosenPengampu = dosen.find(d => d.id === cls.dosen_id);
24         const mhsInClass = cls.mahasiswa_ids
25           .map(id => mahasiswa.find(m => m.id === id))
26           .filter(Boolean);
27
28         return (
29           <div key={cls.id} className="border rounded shadow bg-white">
30             {/* HEADER */}
31             <div className="flex justify-between items-center px-4 py-3 border-b bg-gray-50">
32               <div>
33                 <h3 className="text-lg font-semibold">{matkul?.name || "-"}</h3>
34                 <p className="text-sm text-gray-600">
35                   Dosen: <strong>{dosenPengampu?.name || "-"}</strong>
36                 </p>
37               </div>
38
39             <div className="flex items-center gap-2">
40               <Select
41                 value={selectedDsn[cls.id] || ""}
42                 onChange={(e) =>
43                   setSelectedDsn({ ...selectedDsn, [cls.id]: e.target.value })
44                 }>

```

```

43         setSelectedDsn({ ...selectedDsn, [Kls.id]: e.target.value })
44     ]
45     size="sm"
46     className="w-48"
47   >
48     <option value="-- Ganti Dosen --></option>
49     {dosen.map(d => (
50       <option key={d.id} value={d.id}>{d.name}</option>
51     )))
52   </Select>
53
54   <Button size="sm" onClick={() => handleChangeDosen(kls)}>
55     Simpan
56   </Button>
57
58   {mhsInClass.length === 0 && (
59     <Button
60       size="sm"
61       variant="danger"
62       onClick={() => handleDeleteKelas(kls.id)}
63     >
64       Hapus Kelas
65     </Button>
66   )}
67 </div>
68 </div>
69
70 /* TABLE MAHASISWA */
71 <table className="w-full text-sm">
72   <thead className="bg-blue-600 text-white">
73     <tr>
74       <th className="py-2 px-4 text-left">No</th>
75       <th className="py-2 px-4 text-left">Nama</th>
76       <th className="py-2 px-4 text-left">NIM</th>
77       <th className="py-2 px-4 text-center">Total SKS</th>
78       <th className="py-2 px-4 text-center">Aksi</th>
79     </tr>
80   </thead>
81
82   <tbody>
83     {mhsInClass.length > 0 ? (
84       mhsInClass.map((m, i) => {
85         const totalsks = kelas
86           .filter(k => k.mahasiswa_ids.includes(m.id))
87           .map(k => mataKuliah.find(mk => mk.id === k.mata_kuliah_id)?.sks || 0)
88           .reduce((a, b) => a + b, 0);
89
90         return (
91           <tr key={m.id} className={i % 2 === 0 ? "bg-white" : "bg-gray-100"}>
92             <td className="py-2 px-4">{i + 1}</td>
93             <td className="py-2 px-4">{m.name}</td>
94             <td className="py-2 px-4">{m.nim}</td>
95             <td className="py-2 px-4 text-center">{totalsks}</td>
96             <td className="py-2 px-4 text-center">
97               <Button
98                 size="sm"
99                 variant="danger"
100                onClick={() => handleDeleteMahasiswa(kls, m.id)}
101              >
102                Hapus
103              </Button>
104            </td>
105          );
106        }
107      ) : (
108        <tr>
109          <td colSpan="5" className="py-3 px-4 text-center italic text-gray-500">
110            Belum ada mahasiswa.
111          </td>
112        </tr>
113      )
114    </tbody>
115  </table>
116
```

```

116
117      /* TAMBAH MAHASISWA */
118      <div className="flex items-center gap-2 px-4 py-3 border-t bg-gray-50">
119        <Select
120          value={selectedMhs[kls.id] || ""}
121          onChange={(e) =>
122            setSelectedMhs({ ...selectedMhs, [kls.id]: e.target.value })
123          }
124          size="sm"
125          className="w-56"
126        >
127          <option value="">-- Pilih Mahasiswa --</option>
128          {mahasiswa.map((m) => (
129            <option key={m.id} value={m.id}>
130              {m.name} ({m.nim})
131            </option>
132          )))
133        </Select>
134
135        <Button
136          size="sm"
137          onClick={() =>
138            handleAddMahasiswa(kls, selectedMhs[kls.id])
139          }
140        >
141          Tambah Mahasiswa
142        </Button>
143      </div>
144    </div>
145  );
146  );
147 </div>
148 );
149 }
150

```

/src/Pages/Admin/ModalMahasiswa.jsx

```

Pertemuan-3 > src > Pages > Admin > ⚡ ModalMahasiswajsx > [?] ModalMahasiswa
  1 import Form from "@/Pages/Layouts/Components/Form";
  2 import Input from "@/Pages/Layouts/Components/Input";
  3 import Label from "@/Pages/Layouts/Components/Label";
  4 import Button from "@/Pages/Layouts/Components/Button";
  5
  6 const ModalMahasiswa = ({
  7   isOpen,
  8   isEdit,
  9   form,
 10   onChange,
 11   onClose,
 12   onSubmit,
 13 }) => {
 14   if (!isOpen) return null;
 15
 16   return (
 17     <div className="fixed inset-0 flex items-center justify-center bg-[rgba(0,0,0,0.3)] z-50">
 18       <div className="bg-white rounded-lg shadow-lg w-full max-w-md">
 19         {/* Header Modal */}
 20         <div className="flex justify-between items-center p-4 border-b">
 21           <h2 className="text-lg font-semibold">
 22             {isEdit ? "Edit Mahasiswa" : "Tambah Mahasiswa"}
 23           </h2>
 24           <button
 25             onClick={onClose}
 26             className="text-gray-600 hover:text-red-500 text-xl">
 27             >
 28             &times;
 29           </button>
 30         </div>
 31       </div>
 32     </div>
 33   );
 34 }

```

```
32     <Form onSubmit={onSubmit} className="p-4 space-y-4">
33
34     <div>
35         <Label htmlFor="nim">NIM</Label>
36         <Input
37             type="text"
38             name="nim"
39             value={form.nim}
40             onChange={onChange}
41             placeholder="Masukkan NIM"
42             required
43         />
44     </div>
45
46     <div>
47         <Label htmlFor="nama">Nama</Label>
48         <Input
49             id="name"
50             type="text"
51             name="name"
52             value={form.name}
53             onChange={onChange}
54             placeholder="Masukkan Nama"
55             required
56         />
57     </div>
58
59     <div>
60         <Label htmlFor="max_sks">Max SKS</Label>
61         <Input
62             type="number"
63             name="max_sks"
64             value={form.max_sks}
65             onChange={onChange}
66             placeholder="Masukkan Max SKS"
67             required
68             min={1}
69         />
70     </div>
```

```
71
72     <div className="flex justify-end space-x-2 mt-4">
73         <Button
74             type="button"
75             onClick={onClose}
76             variant="secondary"
77         >
78             Batal
79         </Button>
80         <Button type="submit">
81             {isEdit ? "Perbarui" : "Simpan"}
82         </Button>
83     </div>
84     </Form>
85 </div>
86 );
87 };
88 }
89
90 export default ModalMahasiswa;
91
```

## /src/Pages/Admin/Mahasiswa.jsx

```
Pertemuan-3 > src > Pages > Admin >  Mahasiswa.jsx > [e] Mahasiswa
  1 import React, { useEffect, useState } from "react";
  2 import Card from "@/Pages/Layouts/Components/Card";
  3 import Heading from "@/Pages/Layouts/Components/Heading";
  4 import Button from "@/Pages/Layouts/Components/Button";
  5 import { useNavigate } from "react-router-dom";
  6 import { useAuthStateContext } from "@/Pages/Layouts/Utils/Context/AuthContext";
  7
  8 import TableMahasiswa from "./TableMahasiswa";
  9 import ModalMahasiswa from "./ModalMahasiswa";
 10
 11 import { toastError } from "@/Pages/Layouts/Utils/Helpers/ToastHelpers";
 12 import { confirmDelete, confirmUpdate } from "@/Pages/Layouts/Utils/Helpers/SwalHelpers";
 13
 14 import {
 15   useMahasiswa,
 16   useStoreMahasiswa,
 17   useUpdateMahasiswa,
 18   useDeleteMahasiswa,
 19 } from "@/Pages/Layouts/Utils/Hooks/useMahasiswa";
 20
 21 import { getAllKelas } from "@/Pages/Layouts/Utils/Apis/KelasApi";
 22 import { getAllMataKuliah } from "@/Pages/Layouts/Utils/Apis/MataKuliahApi";
 23
 24 const Mahasiswa = () => {
 25   const navigate = useNavigate();
 26   const { user } = useAuthStateContext();
 27
 28   // ===== STATE PAGINATION & FILTER =====
 29   const [page, setPage] = useState(1);
 30   const [perPage] = useState(6);
 31   const [sort, setSort] = useState("name");
 32   const [order, setOrder] = useState("asc");
 33   const [search, setSearch] = useState("");
 34
 35   // ===== DATA RELASI =====
 36   const [kelas, setKelas] = useState([]);
 37   const [mataKuliah, setMataKuliah] = useState([]);
 38
 39   // ===== FETCH MAHASISWA =====
 40   const {
 41     data: mahasiswa = [],
 42     isLoading: isLoadingMahasiswa,
 43   } = useMahasiswa();
 44
 45   const sortedMahasiswa = [...mahasiswa].sort((a, b) => {
 46     const valA = a[sort];
 47     const valB = b[sort];
 48
 49     // === KHUSUS NIM (M001, M021, dll) ===
 50     if (sort === "nim") {
 51       const numA = parseInt(valA.replace(/\D/g, ""), 10);
 52       const numB = parseInt(valB.replace(/\D/g, ""), 10);
 53
 54       return order === "asc" ? numA - numB : numB - numA;
 55     }
 56
 57     // === STRING NORMAL (name) ===
 58     if (typeof valA === "string" && typeof valB === "string") {
 59       return order === "asc"
 60         ? valA.localeCompare(valB)
 61         : valB.localeCompare(valA);
 62     }
 63
 64     // === NUMBER (max_sks) ===
 65     if (typeof valA === "number" && typeof valB === "number") {
 66       return order === "asc"
 67         ? valA - valB
 68         : valB - valA;
 69     }
 70
 71     return 0;
 72   });
 73
 74   const totalPages = Math.ceil(mahasiswa.length / perPage);
 75   const startIndex = (page - 1) * perPage;
 76   const endIndex = startIndex + perPage;
 77   const paginatedMahasiswa = sortedMahasiswa.slice(startIndex, endIndex);
```

```

81 // ====== FETCH KELAS & MATA KULIAH ======
82 useEffect(() => {
83   const fetchRelasiData = async () => {
84     try {
85       const [resKelas, resMataKuliah] = await Promise.all([
86         getAllKelas(),
87         getAllMataKuliah(),
88       ]);
89
90       setKelas(resKelas.data || []);
91       setMataKuliah(resMataKuliah.data || []);
92     } catch (error) {
93       console.error(error);
94     }
95   };
96
97   fetchRelasiData();
98 }, []);
99
100 // ====== HITUNG TOTAL SKS ======
101 const getTotalSks = (mhsId) => {
102   return kelas
103     .filter((k) => k.mahasiswa_ids?.includes(mhsId))
104     .map(
105       (k) =>
106         mataKuliah.find(
107           (mk) => mk.id === k.mata_kuliah_id
108         )?.skls || 0
109     )
110     .reduce((a, b) => a + b, 0);
111 };
112
113 // ====== MUTATION ======
114 const { mutate: store } = useStoreMahasiswa();
115 const { mutate: update } = useUpdateMahasiswa();
116 const { mutate: remove } = useDeleteMahasiswa();
117

```

```

118 // ====== MODAL & FORM ======
119 const [isModalOpen, setIsModalOpen] = useState(false);
120 const [isEdit, setIsEdit] = useState(false);
121 const [form, setForm] = useState({
122   id: null,
123   nim: "",
124   name: "",
125   max_sks: 0,
126 });
127
128 const handleChange = (e) => {
129   setForm({ ...form, [e.target.name]: e.target.value });
130 };
131
132 const handleAdd = () => {
133   setForm({ id: null, nim: "", name: "", max_sks: 0 });
134   setIsEdit(false);
135   setIsModalOpen(true);
136 };
137
138 const openEditModal = (mhs) => {
139   setForm({
140     id: mhs.id,
141     nim: mhs.nim,
142     name: mhs.name,
143     max_sks: mhs.max_sks,
144   });
145   setIsEdit(true);
146   setIsModalOpen(true);
147 };
148
149 const resetForm = () => {
150   setForm({ id: null, nim: "", name: "", max_sks: 0 });
151   setIsModalOpen(false);
152   setIsEdit(false);
153 };
154

```

```
155 // ===== SUBMIT =====
156 const handleSubmit = (e) => {
157   e.preventDefault();
158
159   if (!form.nim || !form.name || !form.max_sks) {
160     toastError("NIM, Nama, dan Max SKS wajib diisi!");
161     return;
162   }
163
164   if (isEdit) {
165     confirmUpdate(() => {
166       update({ id: form.id, data: form });
167       resetForm();
168     });
169     return;
170   }
171
172   const exists = mahasiswa.find((m) => m.nim === form.nim);
173   if (exists) {
174     toastError("NIM sudah terdaftar!");
175     return;
176   }
177
178   store(form);
179   resetForm();
180 };
181
182 // ===== DELETE =====
183 const handleDelete = (id) => {
184   confirmDelete(() => {
185     remove(id);
186   });
187 };
188
189 // ===== PAGINATION =====
190 const handlePrev = () => setPage((p) => Math.max(p - 1, 1));
191 const handleNext = () => setPage((p) => Math.min(p + 1, totalPages));
192
```

```
193 // ===== RENDER =====
194 return (
195   <>
196   <Card>
197     <div className="flex justify-between items-center mb-4">
198       <Heading as="h2">Daftar Mahasiswa</Heading>
199
200       {user.permission?.includes("mahasiswa.create") && (
201         <Button onClick={handleAdd}>+ Tambah Mahasiswa</Button>
202       )}
203     </div>
204
205     {/* SEARCH & SORT */}
206     <div className="flex flex-wrap gap-2 mb-4">
207       <input
208         type="text"
209         placeholder="Cari nama/NIM..."
210         className="border px-3 py-1 rounded flex-grow"
211         value={search}
212         onChange={(e) => {
213           setSearch(e.target.value);
214           setPage(1);
215         }}
216       />
217
218       <select
219         value={sort}
220         onChange={(e) => {
221           setSort(e.target.value);
222           setPage(1);
223         }}
224         className="border px-3 py-1 rounded"
225       >
226         <option value="name">Sort by Nama</option>
227         <option value="nim">Sort by NIM</option>
228         <option value="max_sks">Sort by Max SKS</option>
229       </select>
230     </div>
231   </Card>
232 
```

```
231         <select
232             value={order}
233             onChange={(e) => {
234                 setOrder(e.target.value);
235                 setPage(1);
236             }}
237             className="border px-3 py-1 rounded"
238         >
239             <option value="asc">Asc</option>
240             <option value="desc">Desc</option>
241         </select>
242     </div>
243
244     /* TABLE */
245     {user.permission?.includes("mahasiswa.read") && (
246         <TableMahasiswa
247             data={paginatedMahasiswa}
248             isLoading={isLoadingMahasiswa}
249             onEdit={openEditModal}
250             onDelete={handleDelete}
251             onDetail={(id) => navigate(`/admin/mahasiswa/${id}`)}
252             getTotalSks={getTotalSks}
253         />
254     )}
255
256     /* PAGINATION */
257     <div className="flex justify-between items-center mt-4">
258         <p className="text-sm">
259             Halaman {page} dari {totalPages}
260         </p>
261
262         <div className="flex gap-2">
263             <button
264                 className="px-3 py-1 bg-gray-200 rounded"
265                 onClick={handlePrev}
266                 disabled={page === 1}
267             >
268                 Prev
269             </button>
270
271             <button
272                 className="px-3 py-1 bg-gray-200 rounded"
273                 onClick={handleNext}
274                 disabled={page === totalPages}
275             >
276                 Next
277             </button>
278         </div>
279     </div>
280     </Card>
281
282     /* MODAL */
283     <ModalMahasiswa
284         isOpen={isModalOpen}
285         isEdit={isEdit}
286         form={form}
287         onChange={handleChange}
288         onClose={() => setIsModalOpen(false)}
289         onSubmit={handleSubmit}
290     />
291     </>
292     );
293 };
294
295 export default Mahasiswa;
296
```

```
270
271         <button
272             className="px-3 py-1 bg-gray-200 rounded"
273             onClick={handleNext}
274             disabled={page === totalPages}
275         >
276             Next
277         </button>
278     </div>
279     </div>
280     </Card>
281
282     /* MODAL */
283     <ModalMahasiswa
284         isOpen={isModalOpen}
285         isEdit={isEdit}
286         form={form}
287         onChange={handleChange}
288         onClose={() => setIsModalOpen(false)}
289         onSubmit={handleSubmit}
290     />
291     </>
292     );
293 };
294
295 export default Mahasiswa;
296
```

## /src/Pages/Admin/TableMahasiswa.jsx

```
Pertemuan-3 > src > Pages > Admin > TableMahasiswajsx > [ ] TableMahasiswa
  1 import Button from "@/Pages/Layouts/Components/Button";
  2 import { useAuthStateContext } from "@/Pages/Layouts/Utils/Context/AuthContext";
  3
  4 const TableMahasiswa = ({
  5   data = [],
  6   isLoading = false,
  7   onEdit,
  8   onDelete,
  9   onDetail,
 10   getTotalSks,
 11 }) => {
 12   const { user } = useAuthStateContext();
 13
 14   return [
 15     <table className="w-full text-sm text-gray-700">
 16       <thead className="bg-blue-600 text-white">
 17         <tr>
 18           <th className="py-2 px-4 text-left">NIM</th>
 19           <th className="py-2 px-4 text-left">Nama</th>
 20           <th className="py-2 px-4 text-center">Max SKS</th>
 21           <th className="py-2 px-4 text-center">Total SKS</th>
 22           <th className="py-2 px-4 text-center">Aksi</th>
 23         </tr>
 24       </thead>
 25
 26       <tbody>
 27         {isLoading && (
 28           <tr>
 29             <td colSpan="5" className="py-4 text-center text-gray-500">
 30               Memuat data...
 31             </td>
 32           </tr>
 33         )}
 34
 35         {!isLoading && data.length === 0 && (
 36           <tr>
 37             <td colSpan="5" className="py-4 text-center text-gray-500">
 38               Data mahasiswa tidak tersedia
 39             </td>
 40           </tr>
 41         )}
 42
 43       {!isLoading &&
 44         data.length > 0 &&
 45         data.map((mhs, index) => {
 46           const totalSks = getTotalSks
 47             ? getTotalSks(mhs.id)
 48             : 0;
 49
 50           return (
 51             <tr
 52               key={mhs.id}
 53               className={
 54                 index % 2 === 0 ? "bg-white" : "bg-gray-100"
 55               }
 56             >
 57               <td className="py-2 px-4">{mhs.nim}</td>
 58               <td className="py-2 px-4">{mhs.name}</td>
 59
 60               <td className="py-2 px-4 text-center">
 61                 {mhs.max_sks}
 62               </td>
 63
 64               <td
 65                 className={`py-2 px-4 text-center font-semibold ${{
 66                   totalSks > mhs.max_sks
 67                     ? "text-red-600"
 68                     : "text-green-600"
 69                 }}`}
 70               >
 71                 {totalSks}
 72               </td>
 73
 74               <td className="py-2 px-4 text-center space-x-2">
 75                 <Button
 76                   size="sm"
 77                   onClick={() => onDetail(mhs.id)}
 78                 >
 79                   Detail
 80                 </Button>
 81               </td>
 82             </tr>
 83           )
 84         )
 85       )
 86     )
 87   )
 88 }
```

```

81         {user.permission?.includes("mahasiswa.update") && (
82             <Button
83                 size="sm"
84                 variant="warning"
85                 onClick={() => onEdit(mhs)}
86             >
87                 Edit
88             </Button>
89         )}
90     )
91
92     {user.permission?.includes("mahasiswa.delete") && (
93         <Button
94             size="sm"
95             variant="danger"
96             onClick={() => onDelete(mhs.id)}
97         >
98             Hapus
99         </Button>
100    )}
101  </td>
102 </tr>
103 );
104 )}}
105 </tbody>
106 </table>
107 );
108 };
109
110 export default TableMahasiswa;
111 |

```

/src/Pages/Admin/ModalMahasiswa.jsx

```

Pertemuan-3 > src > Pages > Admin > ModalMahasiswa.jsx > [?] ModalMahasiswa
  1 import Form from "@/Pages/Layouts/Components/Form";
  2 import Input from "@/Pages/Layouts/Components/Input";
  3 import Label from "@/Pages/Layouts/Components/Label";
  4 import Button from "@/Pages/Layouts/Components/Button";
  5
  6 const ModalMahasiswa = ({
  7   isOpen,
  8   isEdit,
  9   form,
 10   onChange,
 11   onClose,
 12   onSubmit,
 13 }) => [
 14   if (!isOpen) return null;
 15
 16   return (
 17     <div className="fixed inset-0 flex items-center justify-center bg-[rgba(0,0,0,0.3)] z-50">
 18       <div className="bg-white rounded-lg shadow-lg w-full max-w-md">
 19         {/* Header Modal */}
 20         <div className="flex justify-between items-center p-4 border-b">
 21           <h2 className="text-lg font-semibold">
 22             {isEdit ? "Edit Mahasiswa" : "Tambah Mahasiswa"}
 23           </h2>
 24           <button
 25             onClick={onClose}
 26             className="text-gray-600 hover:text-red-500 text-xl"
 27           >
 28             &times;
 29           </button>
 30         </div>
 31
 32         <Form onSubmit={onSubmit} className="p-4 space-y-4">
 33
 34           <div>
 35             <Label htmlFor="nim">NIM</Label>
 36             <Input
 37               type="text"
 38               name="nim"
 39               value={form.nim}
 40               onChange={onChange}
 41               placeholder="Masukkan NIM"
 42               required
 43             />
 44           </div>
 45         </Form>
 46       </div>
 47     </div>
 48   );
 49 }

```

```
45      <div>
46        <Label htmlFor="nama">Nama</Label>
47        <Input
48          id="name"
49          type="text"
50          name="name"
51          value={form.name}
52          onChange={onChange}
53          placeholder="Masukkan Nama"
54          required
55        />
56      </div>
57
58      <div>
59        <Label htmlFor="max_sks">Max SKS</Label>
60        <Input
61          type="number"
62          name="max_sks"
63          value={form.max_sks}
64          onChange={onChange}
65          placeholder="Masukkan Max SKS"
66          required
67          min={1}
68        />
69      </div>
70
71
72      <div className="flex justify-end space-x-2 mt-4">
73        <Button
74          type="button"
75          onClick={onClose}
76          variant="secondary"
77        >
78          Batal
79        </Button>
80        <Button type="submit">
81          {isEdit ? "Perbarui" : "Simpan"}
82        </Button>
83      </div>
84    </Form>
85  </div>
86</div>
87);
88];
89
90export default ModalMahasiswa;
91
```

## Tampilan :

Admin

Login sebagai: admin

### Rencana Studi

Algoritma dan Pemrograman  
Dosen: Slamet

No	Nama	NIM	Total SKS	Aksi
1	Andi	M001	3	<button>Hapus</button>
2	Budi	M002	3	<button>Hapus</button>
3	Citra	M003	3	<button>Hapus</button>
4	Dina	M004	3	<button>Hapus</button>
5	Eko	M005	3	<button>Hapus</button>

-- Pilih Mahasiswa -- Tambah Mahasiswa

+ Tambah Kelas

-- Ganti Dosen -- Simpan

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Admin

Login sebagai: admin

### Rencana Studi

Algoritma dan Pemrograman  
Dosen: Slamet

No	Nama	NIM	Total SKS	Aksi
1	Andi		3	<button>Hapus</button>
2	Budi		3	<button>Hapus</button>
3	Citra		3	<button>Hapus</button>
4	Dina		3	<button>Hapus</button>
5	Eko		3	<button>Hapus</button>

Tambah Kelas Baru

Mata Kuliah: Jaringan Komputer

Dosen Pengampu: Wawan

-- Pilih Mahasiswa -- Tambah Mahasiswa

+ Tambah Kelas

-- Ganti Dosen -- Simpan

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### Rencana Studi

Algoritma dan Pemrograman  
Dosen: Slamet

No	Nama	NIM	Total SKS	Aksi
1	Andi	M001	3	<button>Hapus</button>
2	Budi	M002	3	<button>Hapus</button>
3	Citra	M003	3	<button>Hapus</button>
4	Dina	M004	3	<button>Hapus</button>
5	Eko	M005	3	<button>Hapus</button>

-- Pilih Mahasiswa -- Tambah Mahasiswa

+ Tambah Kelas

-- Ganti Dosen -- Simpan

### Jaringan Komputer

Dosen: Wawan

No	Nama	NIM	Total SKS	Aksi
1	Rudi	M018	2	<button>Hapus</button>
2	Lia	M012	2	<button>Hapus</button>
3	Qila	M017	2	<button>Hapus</button>

-- Pilih Mahasiswa -- Tambah Mahasiswa

-- Ganti Dosen -- Simpan

**Admin**

Login sebagai: **admin**

### Daftar Mahasiswa

Cari nama/NIM... + Tambah Mahasiswa Sort by Nama Asc

NIM	Nama	Max SKS	Total SKS	Aksi
M001	Andi			[Detail] [Edit] [Hapus]
M002	Budi			[Detail] [Edit] [Hapus]
M003	Citra			[Detail] [Edit] [Hapus]
M004	Dina			[Detail] [Edit] [Hapus]
M005	Eko			[Detail] [Edit] [Hapus]
M006	Fajar			[Detail] [Edit] [Hapus]

Tambah Mahasiswa

Cari nama/NIM... + Tambah Mahasiswa Sort by Nama Asc

NIM	Nama	Max SKS	Total SKS	Aksi
A11.2022.14655	Nauval	24	0	[Detail] [Edit] [Hapus]
M020	Tino	18	0	[Detail] [Edit] [Hapus]
M019	Salsa	18	0	[Detail] [Edit] [Hapus]
M018	Rudi	21	2	[Detail] [Edit] [Hapus]
M017	Qila	18	2	[Detail] [Edit] [Hapus]
M016	Putri	18	0	[Detail] [Edit] [Hapus]

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**Admin**

Login sebagai: **admin**

### Daftar Mahasiswa

Cari nama/NIM... + Tambah Mahasiswa Sort by NIM Desc

NIM	Nama	Max SKS	Total SKS	Aksi
A11.2022.14655	Nauval	24	0	[Detail] [Edit] [Hapus]
M020	Tino	18	0	[Detail] [Edit] [Hapus]
M019	Salsa	18	0	[Detail] [Edit] [Hapus]
M018	Rudi	21	2	[Detail] [Edit] [Hapus]
M017	Qila	18	2	[Detail] [Edit] [Hapus]
M016	Putri	18	0	[Detail] [Edit] [Hapus]

Halaman 1 dari 4 Prev Next

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