

/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", "sks": 3 },
3    { "id": "2", "name": "Basis Data", "sks": 3 },
4    { "id": "3", "name": "Jaringan Komputer", "sks": 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 > JS 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 > JS 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 MataKuliahApijs > ...
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             className={({ 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>🏠</span>
26             <span></span>
27             <span className="menu-text hidden lg:inline">Dashboard</span>
28           </NavLink>
29         )}
30
31         /* Menu Mahasiswa */
32         {user.permission?.includes("mahasiswa.page") && (
33           <NavLink
34             to="/admin/mahasiswa"
35             className={({ isActive }) =>
36               `flex items-center space-x-2 px-4 py-2 rounded ${
37                 isActive ? "bg-blue-700" : "hover:bg-blue-700"
38               }`
39             >
40             <span>👤</span>
41             <span></span>
42             <span className="menu-text hidden lg:inline">Mahasiswa</span>
43           </NavLink>
```

```
44         </span>
45         </span>
46         /* Menu Rencana Studi */
47         {user.permission?.includes("rencana-studi.page") && (
48           <NavLink
49             to="/admin/rencana-studi"
50             className={({ 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>📅</span>
56             <span></span>
57             <span className="menu-text hidden lg:inline">Rencana Studi</span>
58           </NavLink>
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 };

```

```

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 };

```

```

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 };

```

```

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   </>

```

```

231
232     <ModalRencanaStudi
233       isOpen={isModalOpen}
234       onClose={() => setIsModalOpen(false)}
235       onChange={handleChange}
236       onSubmit={handleSubmit}
237       form={form}
238       dosen={dosen}
239       mataKuliah={mataKuliahBelumAdaKelas}
240     />
241   </>
242 );
243 };
244
245 export default RencanaStudi;
246

```

/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((kls) => {
22         const matkul = mataKuliah.find(m => m.id === kls.mata_kuliah_id);
23         const dosenPengampu = dosen.find(d => d.id === kls.dosen_id);
24         const mhsInClass = kls.mahasiswa_ids
25           .map(id => mahasiswa.find(m => m.id === id))
26           .filter(Boolean);
27
28         return (
29           <div key={kls.id} className="border rounded shadow bg-white">
30             <div className="flex justify-between items-center px-4 py-3 border-b bg-gray-50">
31               <div>
32                 <h3 className="text-lg font-semibold">{matkul?.name || "-"}</h3>
33                 <p className="text-sm text-gray-600">
34                   Dosen: <strong>{dosenPengampu?.name || "-"}</strong>
35                 </p>
36               </div>
37             </div>
38
39             <div className="flex items-center gap-2">
40               <Select
41                 value={selectedDsn[kls.id] || ""}
42                 onChange={(e) =>
43                   setSelectedDsn({ ...selectedDsn, [kls.id]: e.target.value })
44                 }

```

```

43         setSeletedDsn({ ...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   <tbody>
82     {mhsInClass.length > 0 ? (
83       mhsInClass.map((m, i) => {
84         const totalsKs = kelas
85           .filter(k => k.mahasiswa_ids.includes(m.id))
86           .map(k => mataKuliah.find(mk => mk.id === k.mata_kuliah_id)?.sks || 0)
87           .reduce((a, b) => a + b, 0);
88
89         return (
90           <tr key={m.id} className={i % 2 === 0 ? "bg-white" : "bg-gray-100"}>
91             <td className="py-2 px-4">{i + 1}</td>
92             <td className="py-2 px-4">{m.name}</td>
93             <td className="py-2 px-4">{m.nim}</td>
94             <td className="py-2 px-4 text-center">{totalsKs}</td>
95             <td className="py-2 px-4 text-center">
96               <Button
97                 size="sm"
98                 variant="danger"
99                 onClick={() => handleDeleteMahasiswa(kls, m.id)}
100               >
101                 Hapus
102               </Button>
103             </td>
104           </tr>
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
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 > 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)]
18             z-50">
19             <div className="bg-white rounded-lg shadow-lg w-full max-w-md">
20                 { /* Header Modal */ }
21                 <div className="flex justify-between items-center p-4 border-b">
22                     <h2 className="text-lg font-semibold">
23                         {isEdit ? "Edit Mahasiswa" : "Tambah Mahasiswa"}
24                     </h2>
25                     <button
26                         onClick={onClose}
27                         className="text-gray-600 hover:text-red-500 text-xl"
28                     >
29                         &times;
30                     </button>
31                 </div>
32             </div>
33         </div>
34     );
35 }
36

```

```

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 </div>
87 );
88 };
89
90 export default ModalMahasiswa;
91

```

/src/Pages/Admin/Mahasiswa.jsx

```
Pertemuan-3 > src > Pages > Admin > Mahasiswa.jsx > [M] 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);
78
79 }
```

```

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         ).sks || 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

```

```

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

```

```
/src/Pages/Admin/TableMahasiswa.jsx
```

```

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       </tbody>
43     </table>
44   );
45 }

```

```

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

```

```

81
82         {user.permission?.includes("mahasiswa.update") && (
83             <Button
84                 size="sm"
85                 variant="warning"
86                 onClick={() => onEdit(mhs)}
87             >
88                 Edit
89             </Button>
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 </tbody>
104 </table>
105 </tbody>
106 </table>
107 </div>
108 </div>
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)]
18             z-50">
19             <div className="bg-white rounded-lg shadow-lg w-full max-w-md">
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

```



```

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

```

Tampilan :



