

/db/chart.json

```
Pertemuan-3 > db > {} chart.json > ...
1   {
2     "students": [
3       { "id": 1, "faculty": "Teknik", "count": 320 },
4       { "id": 2, "faculty": "Ekonomi", "count": 210 },
5       { "id": 3, "faculty": "Kedokteran", "count": 150 },
6       { "id": 4, "faculty": "Hukum", "count": 180 },
7       { "id": 5, "faculty": "Ilmu Komputer", "count": 260 }
8     ],
9     "genderRatio": [
10      { "id": 1, "gender": "Laki-laki", "count": 600 },
11      { "id": 2, "gender": "Perempuan", "count": 700 }
12    ],
13     "registrations": [
14       { "id": 1, "year": 2020, "total": 500 },
15       { "id": 2, "year": 2021, "total": 580 },
16       { "id": 3, "year": 2022, "total": 640 },
17       { "id": 4, "year": 2023, "total": 710 }
18     ],
19     "gradeDistribution": [
20       { "subject": "TI", "A": 120, "B": 80, "C": 40 },
21       { "subject": "SI", "A": 100, "B": 90, "C": 50 },
22       { "subject": "MI", "A": 110, "B": 85, "C": 30 }
23     ],
24     "lecturerRanks": [
25       { "rank": "Asisten Ahli", "count": 30 },
26       { "rank": "Lektor", "count": 50 },
27       { "rank": "Lektor Kepala", "count": 40 },
28       { "rank": "Guru Besar", "count": 10 }
29     ]
30   }
```

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

```
Pertemuan-3 > src > Pages > Layouts > Utils > Apis > JS ChartApi.js > ...
1 // ChartApi.jsx
2 import axios from "@/Pages/Layouts/Utils/AxiosInstance";
3
4 export const getAllChartData = () => axios.get("/chart");
```

/src/Pages/Layouts/Utils/Hooks/useChart.jsx

```
Pertemuan-3 > src > Pages > Layouts > Utils > Hooks > useChart.jsx > ...
1 import { useQuery } from "@tanstack/react-query";
2 import { getAllChartData } from "@/Pages/Layouts/Utils/Apis/ChartApi";
3
4 export const useChartData = () =>
5   useQuery({
6     queryKey: ["chart", "all"],
7     queryFn: getAllChartData,
8     select: (res) => res.data,
9   });
10 |
```

## /src/Pages/Admin/Dashboard.jsx

```
Pertemuan-3 > src > Pages > Admin > Dashboard.jsx > ...
1  // Dashboard.jsx
2  import React from "react";
3  import {
4    BarChart,
5    Bar,
6    PieChart,
7    Pie,
8    Cell,
9    LineChart,
10   Line,
11   RadarChart,
12   Radar,
13   AreaChart,
14   Area,
15   XAxis,
16   YAxis,
17   PolarGrid,
18   PolarAngleAxis,
19   PolarRadiusAxis,
20   CartesianGrid,
21   Tooltip,
22   Legend,
23   ResponsiveContainer,
24 } from "recharts";
25
26 import { useChartData } from "@/Pages/Layouts/Utils/Hooks/useChartData";
27
28 const COLORS = ["#8884d8", "#82ca9d", "#ffc658", "#ff8042", "#8dd1e1"];
29
30 const Dashboard = () => {
31   const { data = {}, isLoading } = useChartData();
32
33   const {
34     students = [],
35     genderRatio = [],
36     registrations = [],
37     gradeDistribution = [],
38     lecturerRanks = [],
39   } = data;
40 }
```

```
40
41 if (isLoading) {
42   return (
43     <div className="p-6 text-center text-gray-500">
44       Loading chart data...
45     </div>
46   );
47 }
48
49 return (
50   <div className="p-6">
51     <h1 className="text-2xl font-bold mb-6">
52       Selamat Datang di Dashboard
53     </h1>
54
55     /* GRID LAYOUT */
56     <div className="grid grid-cols-1 md:grid-cols-2 gap-6">
57
58       {/* ===== A. BAR CHART ===== */}
59       <div className="bg-white p-4 rounded shadow">
60         <h2 className="font-semibold mb-4">
61           Jumlah Mahasiswa per Fakultas
62         </h2>
63
64         <ResponsiveContainer width="100%" height={300}>
65           <BarChart data={students}>
66             <CartesianGrid strokeDasharray="3 3" />
67             <XAxis dataKey="faculty" />
68             <YAxis />
69             <Tooltip />
70             <Legend />
71             <Bar dataKey="count" fill="#8884d8" />
72           </BarChart>
73         </ResponsiveContainer>
74       </div>
75
76       {/* ===== B. PIE CHART ===== */}
77       <div className="bg-white p-4 rounded shadow">
78         <h2 className="font-semibold mb-4">
79           Rasio Gender Mahasiswa
80         </h2>
```

```
81          <ResponsiveContainer width="100%" height={300}>
82              <PieChart>
83                  <Pie
84                      data={genderRatio}
85                      dataKey="count"
86                      nameKey="gender"
87                      cx="50%"
88                      cy="50%"
89                      outerRadius={80}
90                      Label
91                  >
92                      {genderRatio.map(_, index) =>
93                          <Cell
94                              key={`cell-${index}`}
95                              fill={COLORS[index % COLORS.length]}
96                          />
97                      )}
98                  </Pie>
99                  <Tooltip />
100                 <Legend />
101             </PieChart>
102         </ResponsiveContainer>
103     </div>
104
105     {/* ===== C. LINE CHART ===== */}
106     <div className="bg-white p-4 rounded shadow">
107         <h2 className="font-semibold mb-4">
108             Registrasi Mahasiswa per Tahun
109         </h2>
110
111
112     {/* ===== C. LINE CHART ===== */}
113     <div className="bg-white p-4 rounded shadow">
114         <h2 className="font-semibold mb-4">
115             Registrasi Mahasiswa per Tahun
116         </h2>
117
118         <ResponsiveContainer width="100%" height={300}>
119             <LineChart data={registrations}>
120                 <CartesianGrid strokeDasharray="3 3" />
121                 <XAxis dataKey="year" />
122                 <YAxis />
123                 <Tooltip />
124                 <Legend />
125                 <Line
126                     type="monotone"
127                     dataKey="total"
128                     stroke="#82ca9d"
129                     strokeWidth={2}
130                 />
131             </LineChart>
132         </ResponsiveContainer>
133     </div>
134
```

```
106     {/* ===== C. LINE CHART ===== */}
107     <div className="bg-white p-4 rounded shadow">
108         <h2 className="font-semibold mb-4">
109             Registrasi Mahasiswa per Tahun
110         </h2>
111
112         <ResponsiveContainer width="100%" height={300}>
113             <LineChart data={registrations}>
114                 <CartesianGrid strokeDasharray="3 3" />
115                 <XAxis dataKey="year" />
116                 <YAxis />
117                 <Tooltip />
118                 <Legend />
119                 <Line
120                     type="monotone"
121                     dataKey="total"
122                     stroke="#82ca9d"
123                     strokeWidth={2}
124                 />
125             </LineChart>
126         </ResponsiveContainer>
127     </div>
128
```

```

129  /* ----- D. RADAR CHART ----- */
130 <div className="bg-white p-4 rounded shadow">
131   <h2 className="font-semibold mb-4">
132     Nilai Mahasiswa per Jurusan
133   </h2>
134
135   <ResponsiveContainer width="100%" height={300}>
136     <RadarChart
137       cx="50%"
138       cy="50%"
139       outerRadius="80%"
140       data={gradeDistribution}
141     >
142       <PolarGrid />
143       <PolarAngleAxis dataKey="subject" />
144       <PolarRadiusAxis />
145       <Radar
146         name="A"
147         dataKey="A"
148         stroke="#8884d8"
149         fill="#8884d8"
150         fillOpacity={0.6}
151       />
152       <Radar
153         name="B"
154         dataKey="B"
155         stroke="#82ca9d"
156         fill="#82ca9d"
157         fillOpacity={0.4}
158       />
159       <Radar
160         name="C"
161         dataKey="C"
162         stroke="#ffc658"
163         fill="#ffc658"
164         fillOpacity={0.3}
165       />
166     <Legend />
167   </RadarChart>
168 </ResponsiveContainer>
169 </div>

```

```

170  /* ----- E. AREA CHART (FULL WIDTH) ----- */
171 <div className="bg-white p-4 rounded shadow md:col-span-2">
172   <h2 className="font-semibold mb-4">
173     Jumlah Dosen Berdasarkan Pangkat
174   </h2>
175
176   <ResponsiveContainer width="100%" height={300}>
177     <AreaChart data={lecturerRanks}>
178       <defs>
179         <linearGradient
180           id="colorLecturer"
181           x1="0"
182           y1="0"
183           x2="0"
184           y2="1"
185         >
186           <stop
187             offset="5%"
188             stopColor="#8884d8"
189             stopOpacity={0.8}
190           />
191           <stop
192             offset="95%"
193             stopColor="#8884d8"
194             stopOpacity={0}
195           />
196         </linearGradient>
197       </defs>
198       <XAxis dataKey="rank" />
199       <YAxis />
200       <CartesianGrid strokeDasharray="3 3" />
201       <Tooltip />
202     <Area
203       type="monotone"
204       dataKey="count"
205       stroke="#8884d8"
206       fillOpacity={1}
207       fill="url(#colorLecturer)"
208     />
209   </AreaChart>
210 </ResponsiveContainer>
211 </div>
212
213   </div>
214 </div>
215   );
216 };
217 }
218
219 export default Dashboard;
220

```

```

203   <Area
204     type="monotone"
205     dataKey="count"
206     stroke="#8884d8"
207     fillOpacity={1}
208     fill="url(#colorLecturer)"
209   />
210   </AreaChart>
211   </ResponsiveContainer>
212 </div>
213
214   </div>
215 </div>
216   );
217 }
218
219 export default Dashboard;
220

```

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

```
Pertemuan-3 > src > Pages > Admin > RencanaStudi.jsx > RencanaStudi
 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   // ===== UTILITIES SKS =====
67   const getMaxSks = (id) =>
68     mahasiswa.find((m) => m.id === id)?.max_sks || 0;
69
70   const getDosenMaxSks = (id) =>
71     dosen.find((d) => d.id === id)?.max_sks || 0;
72
73   // ===== OPEN ADD MODAL =====
74   const openAddModal = () => {
75     setForm({ mata_kuliah_id: "", dosen_id: "" });
76     setIsModalOpen(true);
77   };
78 }
```

```

75
79 // ====== SUBMIT TAMBAH KELAS ======
80 const handleSubmit = async (e) => {
81   e.preventDefault();
82
83   if (!form.mata_kuliah_id || !form.dosen_id) {
84     toastError("Form tidak lengkap");
85     return;
86   }
87
88   const dosenSudahDipakai = kelas.find(
89     k => k.dosen_id === form.dosen_id
90   );
91
92   if (dosenSudahDipakai) {
93     toastError("Dosen ini sudah mengampu mata kuliah lain");
94     return;
95   }
96
97   await storeKelas({
98     ...form,
99     mahasiswa_ids: [],
100   });
101
102   setIsModalOpen(false);
103   toastSuccess("Kelas ditambahkan");
104   fetchData();
105 };
106
107 // ====== HANDLE CHANGE FORM ======
108 const handleChange = (e) => {
109   setForm({
110     ...form,
111     [e.target.name]: e.target.value,
112   });
113 };
114
115 // ====== TAMBAH MAHASISWA ======
116 const handleAddMahasiswa = async (kelasItem, mhsId) => {
117   if (!mhsId) return;
118
119   const matkul = mataKuliah.find(
120     m => m.id === kelasItem.mata_kuliah_id
121   );
122   const sks = matkul?.sks || 0;
123
124   const totalSksMahasiswa = kelas
125     .filter((k) => k.mahasiswa_ids.includes(mhsId))
126     .map(
127       (k) =>
128         mataKuliah.find((m) => m.id === k.mata_kuliah_id)?.sks || 0
129     )
130     .reduce((acc, curr) => acc + curr, 0);
131
132   const maxSks = getMaxSks(mhsId);
133
134   if (totalSksMahasiswa + sks > maxSks) {
135     toastError(`SKS melebihi batas maksimal ${maxSks}`);
136     return;
137   }
138
139   if (kelasItem.mahasiswa_ids.includes(mhsId)) {
140     toastError("Mahasiswa sudah terdaftar");
141     return;
142   }
143
144   const updated = {
145     ...kelasItem,
146     mahasiswa_ids: [...kelasItem.mahasiswa_ids, mhsId],
147   };
148
149   await updateKelas(kelasItem.id, updated);
150   toastSuccess("Mahasiswa berhasil ditambahkan");
151
152   setSelectedMhs((prev) => ({ ...prev, [kelasItem.id]: "" }));
153   fetchData();
154 };
155

```

```

156 // ===== HAPUS MAHASISWA =====
157 const handleDeleteMahasiswa = async (kelasItem, mhsId) => {
158   const updated = {
159     ...kelasItem,
160     mahasiswa_ids: kelasItem.mahasiswa_ids.filter((id) => id !== mhsId),
161   };
162
163   await updateKelas(kelasItem.id, updated);
164   toastSuccess("Mahasiswa dihapus");
165   fetchData();
166 };
167
168 // ===== GANTI DOSEN =====
169 const handleChangeDosen = async (kelasItem) => {
170   const dsnId = selectedDsn[kelasItem.id];
171   if (!dsnId) return;
172
173   const totalSksDosen = kelas
174     .filter((k) => k.dosen_id === dsnId)
175     .map(
176       (k) =>
177         mataKuliah.find((m) => m.id === k.mata_kuliah_id)?.sks || 0
178     )
179     .reduce((acc, curr) => acc + curr, 0);
180
181   const kelasSks =
182     mataKuliah.find((m) => m.id === kelasItem.mata_kuliah_id)?.sks || 0;
183
184   const maxSks = getDosenMaxSks(dsnId);
185
186   if (totalSksDosen + kelasSks > maxSks) {
187     toastError(`Dosen melebihi batas maksimal SKS (${maxSks})`);
188     return;
189   }
190
191   await updateKelas(kelasItem.id, { ...kelasItem, dosen_id: dsnId });
192   toastSuccess("Dosen diperbarui");
193   fetchData();
194 };
195

```

```

195
196 // ===== HAPUS KELAS =====
197 const handleDeleteKelas = async (kelasId) => {
198   confirmDelete(async () => {
199     await deleteKelas(kelasId);
200     toastSuccess("Kelas dihapus");
201     fetchData();
202   });
203 };
204
205 // ===== 1 Dosen 1 Matakuliah =====
206 const dosenSudahPunyaKelas = kelas.map(k => k.dosen_id);
207 const dosenAvailable = dosen.filter(
208   d => !dosenSudahPunyaKelas.includes(d.id)
209 );
210
211 // ===== RENDER =====
212 return (
213   <>
214   <Card>
215     <div className="flex justify-between items-center mb-4">
216       <Heading as="h2">Rencana Studi</Heading>
217
218       {user.permission?.includes("rencana-studi.page") && (
219         <Button onClick={openAddModal}>
220           + Tambah Kelas
221         </Button>
222       )}
223     </div>
224

```

```

224
225     <TableRencanaStudi
226       kelas={kelas}
227       mahasiswa={mahasiswa}
228       dosen={dosen}
229       mataKuliah={mataKuliah}
230       selectedMhs={selectedMhs}
231       setSelectedMhs={setSelectedMhs}
232       selectedDsn={selectedDsn}
233       setSelectedDsn={setSelectedDsn}
234       handleAddMahasiswa={handleAddMahasiswa}
235       handleDeleteMahasiswa={handleDeleteMahasiswa}
236       handleChangeDosen={handleChangeDosen}
237       handleDeleteKelas={handleDeleteKelas}
238     />
239   </Card>
240
241   <ModalRencanaStudi
242     isOpen={isModalOpen}
243     onClose={() => handleCloseModal()}
244     onChange={const handleSubmit: (e: any) => Promise<void>}
245     onSubmit={handleSubmit}
246     form={form}
247     dosen={dosenAvailable}
248     mataKuliah={mataKuliah}
249   />
250   </>
251 );
252 };
253
254 export default RencanaStudi;
255

```

/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             </div>
39           </div>
40         );
41       })
42     </div>
43   );
44 }

```

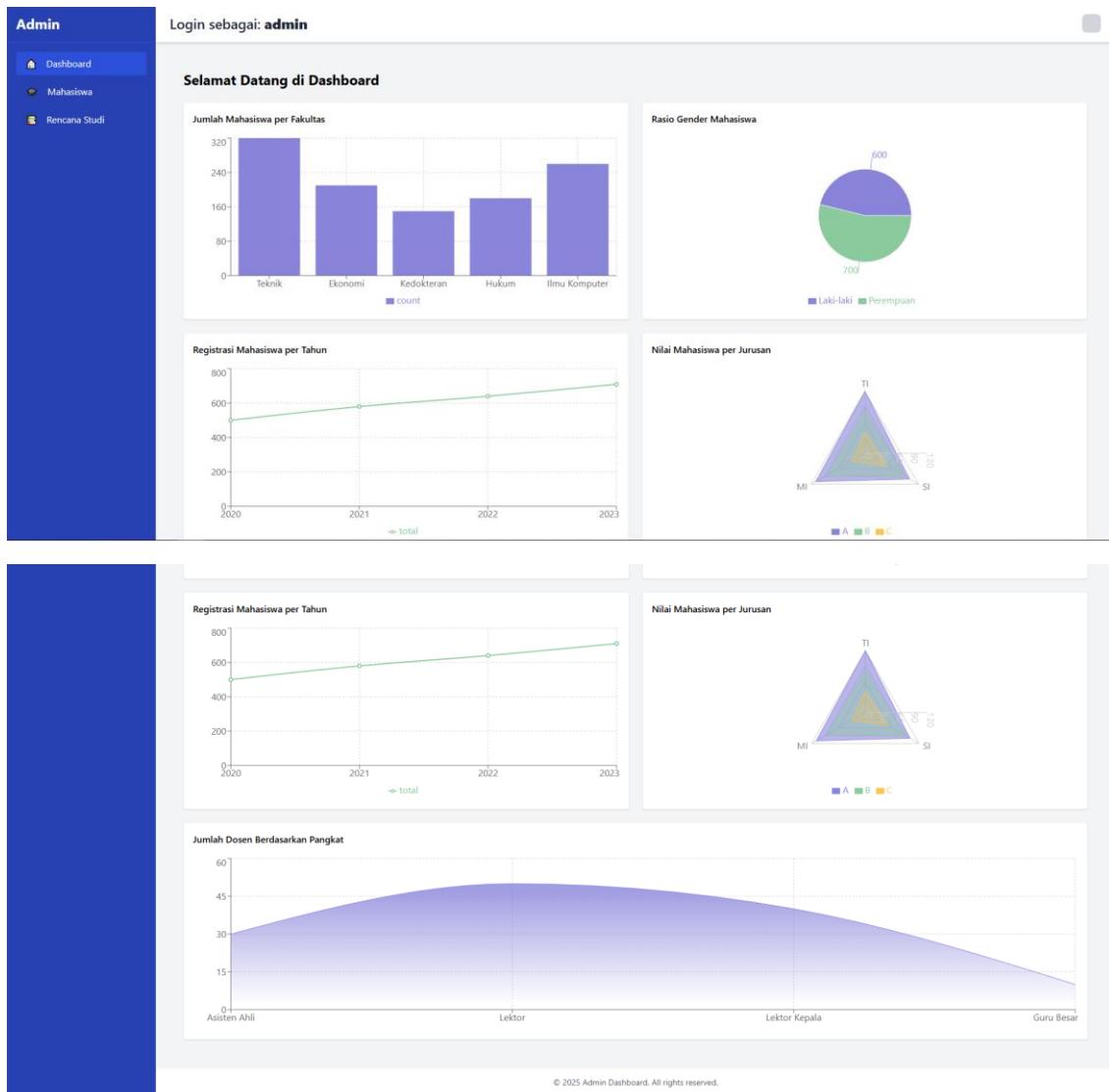
```

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                 }
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">Max SKS</th>
79                 <th className="py-2 px-4 text-center">Aksi</th>
80             </tr>
81         </thead>
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">{m.max_sks}</td>
97                             <td className="py-2 px-4 text-center">
98                                 <Button
99                                     size="sm"
100                                     variant="danger"
101                                     onClick={() => handleDeleteMahasiswa(kls, m.id)}
102                                 >
103                                     Hapus
104                                 </Button>
105                             </td>
106                         </tr>
107                     );
108                 });
109             ) : (

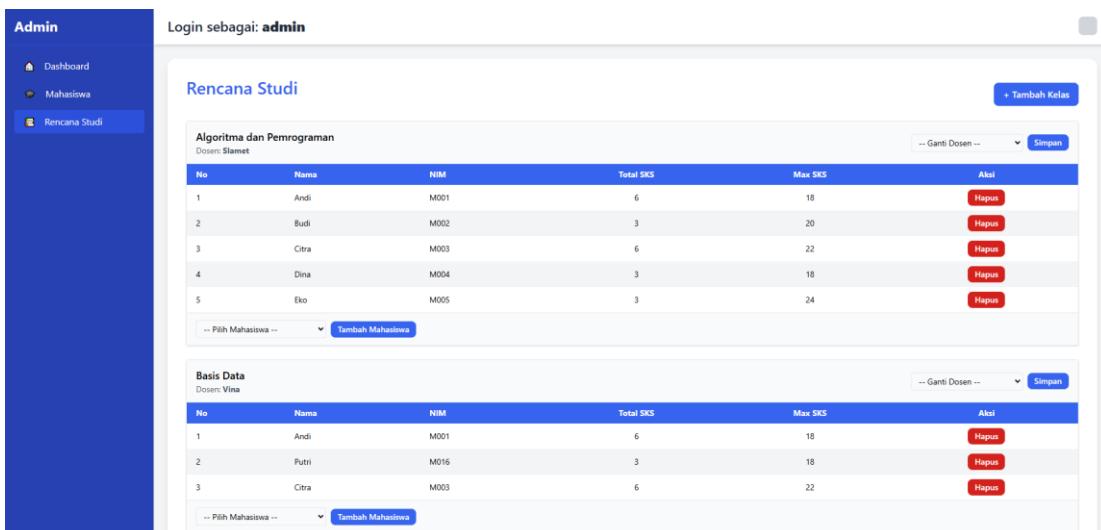
```

```
110         <tr>
111             <td colspan="5" className="py-3 px-4 text-center italic text-gray-500">
112                 Belum ada mahasiswa.
113             </td>
114         </tr>
115     </tbody>
116   </table>
117
118 /* TAMBAH MAHASISWA */
119 <div className="flex items-center gap-2 px-4 py-3 border-t bg-gray-50">
120   <Select
121     value={selectedMhs[kls.id] || ""}
122     onChange={(e) =>
123       setSelectedMhs({ ...selectedMhs, [kls.id]: e.target.value })
124     }
125     size="sm"
126     className="w-56"
127   >
128     <option value="">-- Pilih Mahasiswa --</option>
129     {mahasiswa.map((m) => (
130       <option key={m.id} value={m.id}>
131         {m.name} ({m.nim})
132       </option>
133     )));
134   </Select>
135
136   <Button
137     size="sm"
138     onClick={() =>
139       handleAddMahasiswa(kls, selectedMhs[kls.id])
140     }
141   >
142     Tambah Mahasiswa
143   </Button>
144   </div>
145 </div>
146 );
147 );
148 </div>;
149 </div>;
150 </div>;
151 }
```

Tampilan :



Menampilkan maksimal sks yang dapat diambil dan jumlah sks yang diambil mahasiswa:



Saat Dosen sudah memilih 1 matakuliah maka tidak bisa ambil lagi:

Admin

Login sebagai: **admin**

Rencana Studi

Dosen: Slamet

+ Tambah Kelas

-- Ganti Dosen -- Simpan

No	Nama	NIM	Total SKS	Max SKS	Aksi
1	Andi			18	<button>Hapus</button>
2	Budi			20	<button>Hapus</button>
3	Citra			22	<button>Hapus</button>
4	Dina			18	<button>Hapus</button>
5	Eko			24	<button>Hapus</button>

-- Pilih Mahasiswa -- Tambah Mahasiswa

Tambah Kelas Baru

Mata Kuliah: Algoritma dan Pemrograman

Dosen Pengampu: -- Pilih --

Tini  
Udin  
Wawan

Basis Data

Dosen: Vina

-- Ganti Dosen -- Simpan

No	Nama	NIM	Total SKS	Max SKS	Aksi
1	Andi	M001	6	18	<button>Hapus</button>
2	Putri	M016	3	18	<button>Hapus</button>
3	Citra	M003	6	22	<button>Hapus</button>

-- Pilih Mahasiswa -- Tambah Mahasiswa