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1: #include <iostream>
2: #include <windows.h>
3: #include <conio.h>
4:
5: using namespace std;
6:
7: HANDLE console = GetStdHandle(STD_OUTPUT_HANDLE);
8: COORD CursorPosition;
9:
10: void gotoxy(int x, int y) {
11:     CursorPosition.X = x;
12:     CursorPosition.Y = y;
13:     SetConsoleCursorPosition(console, CursorPosition);
14: }
15:
16: string username, password;
17:
18: void login() {
19:     gotoxy(30,10);cout<<"LOGIN";
20:     gotoxy(25,12);cout<<"Username : "<<endl;
21:     gotoxy(25,13);cout<<"Password : ";
22:     gotoxy(36,12);getline(cin, username);
23:     gotoxy(36,13);getline(cin, password);
24: }
25:
26: int banyak_mhs = 0, banyak_matkul = 0;
27: #define max 200
28: string nama[max];
29: string nim[max];
30: string kelas[max];
31: string matkul[max];
32: float nilai[max][max];
33:
34: void input() {
35:     do{
36:         int pilihan;
37:         system("cls");
38:         cout<<"Halaman Tambah Data\n";
39:         cout<<"=====\n";
40:         cout<<"1. Tambah Data Mahasiswa\n";
41:         cout<<"2. Tambah Data Mata Kuliah\n";
42:         cout<<"3. Tambah Data Nilai Mahasiswa\n";
43:         cout<<"4. Kembali Ke Menu Utama\n";
44:         cout<<"=====\n";
45:         cout<<"Masukkan Pilihan : "; cin>>pilihan;
46:         if (pilihan == 1) {
47:             system("cls");
48:             int n;
49:             cout<<"Masukan Banyaknya Data Yang Ingin Diinput : "; cin>>n;
50:             for(int i = 0; i < n; i++) {
51:                 cin.ignore();
52:                 system("cls");
53:                 banyak_mhs += 1;
54:                 cout<<"Data Ke - "<<banyak_mhs<<"\n\n";
55:                 cout<<"Masukkan Nama : \n";
56:                 cout<<"Masukkan Nim : \n";
57:                 cout<<"Masukkan Kelas : \n";
58:                 gotoxy(17,2); getline(cin, nama[banyak_mhs - 1]);
59:                 gotoxy(17,3); getline(cin, nim[banyak_mhs - 1]);
60:                 gotoxy(17,4); getline(cin, kelas[banyak_mhs - 1]);

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61:         system("cls");
62:         for(int j = 0; j < banyak_mhs; j++) {
63:             if(nim[j-1] == nim[banyak_mhs-1]) {
64:                 cout<<"Data Nim "<<nim[banyak_mhs-1]<<" Sudah Ada";
65:                 banyak_mhs -= 1;
66:                 cin.get();
67:                 break;
68:             } else if (j == banyak_mhs - 1) {
69:                 cout<<"Data Nim "<<nim[banyak_mhs - 1]<<" Berhasil
Diinput";
70:                 cin.get();
71:             }
72:         }
73:     }
74: }else if (pilihan == 2) {
75:     system("cls");
76:     int n;
77:     cout<<"Masukkan Jumlah Matkul : "; cin>>n;
78:     for(int i = 0; i < n; i++) {
79:         banyak_matkul += 1;
80:         cout<<"Masukkan Mata Kuliah Ke "<<banyak_matkul<<" : ";
81:         cin>>matkul[banyak_matkul - 1];
82:     }
83: }else if (pilihan == 3) {
84:     system("cls");
85:     if (banyak_mhs > 0 and banyak_matkul > 0) {
86:         int n;
87:         cout<<"\tData Mahasiswa\n";
88:         cout<<"\t=====\n";
89:         for(int i = 0; i < banyak_mhs; i++) {
90:             cout<<i+1<<" ". <<nama[i]<<endl;
91:         }
92:         cout<<"Masukkan Pilihan : "; cin>>pilihan;
93:         n = pilihan - 1;
94:         system("cls");
95:         cout<<"Input Nilai "<<nama[n]<<endl;
96:         for(int i = 0; i < banyak_matkul; i++) {
97:             cout<<"Masukkan Nilai "<<matkul[i]<<" = ";
98:             cin>>nilai[n][i];
99:         }
100:     }else if (banyak_matkul > 0 and banyak_mhs == 0) {
101:         cout<<"Data Mahasiswa Masih Kosong";
102:         cin.get(); cin.get();
103:     }else if (banyak_matkul == 0 and banyak_mhs > 0) {
104:         cout<<"Data Mata Kuliah Masih Kosong";
105:         cin.get(); cin.get();
106:     }else {
107:         cout<<"Data Mahasiswa Dan Mata Kuliah Masih Kosong";
108:         cin.get(); cin.get();
109:     }
110:
111: }else if (pilihan == 4) {
112:     break;
113: }
114: }while (true);
115: }
116:
117: void lihat() {
118:     do{
119:         int pilihan;

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120: system("cls");
121: cout<<"Halaman Semua Data\n";
122: cout<<"=====\n";
123: cout<<"1. Data Mahasiswa dan Nilai Mahasiswa\n";
124: cout<<"2. Data Mata Kuliah\n";
125: cout<<"3. Kembali Ke Menu Utama\n";
126: cout<<"=====\n";
127: cout<<"Masukkan Pilihan : "; cin>>pilihan;
128: if (pilihan == 1) {
129:     system("cls");
130:     if (banyak_mhs > 0 and banyak_matkul > 0) {
131:         cout<<"\tData Mahasiswa\n";
132:         cout<<"\t=====\n";
133:         for(int i = 0; i < banyak_mhs; i++) {
134:             cout<<i+1<<" ".<<nama[i]<<endl;
135:         }
136:         cout<<"Masukkan Pilihan : "; cin>>pilihan;
137:         int n = pilihan - 1;
138:         float total = 0, rata_rata;
139:         system("cls");
140:         cout<<"Data Mahasiswa\n";
141:         cout<<"+++++++\n";
142:         cout<<"| Nama Mahasiswa | Nim | Kelas |\n";
143:         cout<<"+++++++\n";
144:         cout<<"| "<<nama[n];
145:         gotoxy(28,4); cout<<"| "<<nim[n];
146:         gotoxy(42,4); cout<<"| "<<kelas[n];
147:         gotoxy(50,4); cout<<"|\n";
148:         cout<<"+++++++\n";
149:         cout<<endl;
150:         cout<<"Data Mata Kuliah\n";
151:         cout<<"+++++\n";
152:         cout<<"| NO | Mata Kuliah | Nilai |\n";
153:         cout<<"+++++\n";
154:         int i = 0;
155:         for(i; i < banyak_matkul; i++) {
156:             cout<<"| "<<i+1;
157:             gotoxy(5,i+11); cout<<"| "<<matkul[i];
158:             gotoxy(27,i+11); cout<<"| "<<nilai[n][i];
159:             gotoxy(37,i+11); cout<<"|\n";
160:             total += nilai[n][i];
161:         }
162:         rata_rata = total / banyak_matkul;
163:         cout<<"+---+-----+\n";
164:         cout<<"| Jumlah";
165:         gotoxy(27,i+12); cout<<"| "<<total;
166:         gotoxy(37,i+12); cout<<"|\n";
167:         cout<<"+---+-----+\n";
168:         cout<<"| Rata-Rata";
169:         gotoxy(27,i+14); cout<<"| "; printf("%.2f",rata_rata);
170:         gotoxy(37,i+14); cout<<"|\n";
171:         cout<<"+++++++\n";
172:         cin.get();cin.get();
173:     }else if (banyak_matkul > 0 and banyak_mhs == 0) {
174:         cout<<"Data Mahasiswa Masih Kosong";
175:         cin.get(); cin.get();
176:     }else if (banyak_matkul == 0 and banyak_mhs > 0) {
177:         cout<<"Data Mata Kuliah Masih Kosong";
178:         cin.get(); cin.get();
179:     }else {

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180:         cout<<"Data Mahasiswa Dan Mata Kuliah Masih Kosong";
181:         cin.get(); cin.get();
182:     }
183: }else if (pilihan == 2) {
184:     system("cls");
185:     if(banyak_matkul > 0) {
186:         cout<<"\tData Mata Kuliah\n";
187:         cout<<"\t=====\n";
188:         for(int i = 0; i < banyak_matkul; i++) {
189:             cout<<i+1<<" " <<matkul[i]<<endl;
190:         }
191:         cin.get(); cin.get();
192:     } else {
193:         cout<<"Data Mata Kuliah Masih Kosong";
194:         cin.get(); cin.get();
195:     }
196: }else if (pilihan == 3) {
197:     break;
198: }
199: }while (true);
200: }
201:
202: void edit() {
203:     do{
204:         int pilihan;
205:         system("cls");
206:         cout<<"Halaman Edit Data\n";
207:         cout<<"=====\n";
208:         cout<<"1. Edit Identitas Mahasiswa\n";
209:         cout<<"2. Edit Mata Kuliah\n";
210:         cout<<"3. Edit Nilai Mahasiswa\n";
211:         cout<<"4. Kembali Ke Menu Utama\n";
212:         cout<<"=====\n";
213:         cout<<"Masukkan Pilihan : "; cin>>pilihan;
214:         if (pilihan == 1) {
215:             system("cls");
216:             if(banyak_mhs > 0) {
217:                 cout<<"\tData Mahasiswa\n";
218:                 cout<<"\t=====\n";
219:                 for(int i = 0; i < banyak_mhs; i++) {
220:                     cout<<" " <<i+1<<" " <<nama[i]<<endl;
221:                 }
222:                 cout<<"Masukkan Pilihan : "; cin>>pilihan;
223:                 system("cls");
224:                 int n = pilihan - 1;
225:                 cout<<"Data Sebelumnya\n";
226:                 cout<<"+++++++\n";
227:                 cout<<"| Nama Mahasiswa | Nim | Kelas |\n";
228:                 cout<<"+++++++\n";
229:                 cout<<"| " <<nama[n];
230:                 gotoxy(28,4); cout<<"| " <<nim[n];
231:                 gotoxy(42,4); cout<<"| " <<kelas[n];
232:                 gotoxy(50,4); cout<<"|\n";
233:                 cout<<"+++++++\n";
234:                 cout<<" Masukkan Data Baru\n";
235:                 cin.ignore();
236:                 cout<<" Masukkan Nama : "; getline(cin, nama[n]);
237:                 cout<<" Masukkan Nim : "; getline(cin, nim[n]);
238:                 cout<<" Masukkan Kelas : "; getline(cin, kelas[n]);
239:                 cin.get(); cin.get();

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240:         } else {
241:             cout<<"Data Mahasiswa Masih Kosong";
242:             cin.get(); cin.get();
243:         }
244:     }else if (pilihan == 2) {
245:         system("cls");
246:         if(banyak_matkul > 0) {
247:             cout<<" Data Mata Kuliah\n";
248:             cout<<" =====\n";
249:             for(int i = 0; i < banyak_matkul; i++) {
250:                 cout<<i+1<<" ". "<<matkul[i]<<endl;
251:             }
252:             cout<<" Masukkan Pilihan Yang Akan Di Edit : "; cin>>pilihan;
253:             int n = pilihan - 1;
254:             cout<<endl<<endl;
255:             cout<<"Masukkan Mata Kuliah : "; cin>>matkul[n];
256:         } else {
257:             cout<<"Data Mata Kuliah Masih Kosong";
258:             cin.get(); cin.get();
259:         }
260:     }else if (pilihan == 3) {
261:         system("cls");
262:         if(banyak_mhs > 0 and banyak_matkul > 0) {
263:             cout<<" Data Mahasiswa\n";
264:             cout<<" =====\n";
265:             for(int i = 0; i < banyak_mhs; i++) {
266:                 cout<<i+1<<" ". "<<nama[i]<<endl;
267:             }
268:             cout<<" Masukkan Pilihan : "; cin>>pilihan;
269:             system("cls");
270:             int n = pilihan - 1;
271:             cout<<"Data Sebelumnya\n";
272:             cout<<"+++++=====+=====+\n";
273:             cout<<"| NO |      Mata Kuliah      | Nilai |\n";
274:             cout<<"+++++=====+=====+\n";
275:             for(int i = 0; i < banyak_matkul; i++) {
276:                 cout<<"| "<<i+1;
277:                 gotoxy(5,i+4); cout<<"| "<<matkul[i];
278:                 gotoxy(27,i+4); cout<<"| "<<nilai[n][i];
279:                 gotoxy(37,i+4); cout<<"|\n";
280:             }
281:             cout<<"+++++=====+=====+\n";
282:             cout<<endl;
283:             for(int i = 0; i < banyak_matkul; i++){
284:                 cout<<" Masukkan Nilai "<<matkul[i]<<" : ";
285:                 cin>>nilai[n][i];
286:             }
287:             cin.get(); cin.get();
288:         }else if (banyak_matkul > 0 and banyak_mhs == 0) {
289:             cout<<"Data Mahasiswa Masih Kosong";
290:             cin.get(); cin.get();
291:         }else if (banyak_matkul == 0 and banyak_mhs > 0) {
292:             cout<<"Data Mata Kuliah Masih Kosong";
293:             cin.get(); cin.get();
294:         }else {
295:             cout<<"Data Mahasiswa Dan Mata Kuliah Masih Kosong";
296:             cin.get(); cin.get();
297:         }
298:     }else if (pilihan == 4) {
299:         break;

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300:         }
301:     }while (true);
302: }
303:
304: void hapus() {
305:     do{
306:         int pilihan;
307:         system("cls");
308:         cout<<"Halaman Hapus Data\n";
309:         cout<<"=====\\n";
310:         cout<<"1. Hapus Data Mahasiswa\\n";
311:         cout<<"2. Hapus Mata Kuliah\\n";
312:         cout<<"3. Kembali Ke Menu Utama\\n";
313:         cout<<"=====\\n";
314:         cout<<"Masukkan Pilihan : "; cin>>pilihan;
315:         if (pilihan == 1) {
316:             system("cls");
317:             if(banyak_mhs > 0) {
318:                 cout<<" Data Mahasiswa\\n";
319:                 cout<<" =====\\n";
320:                 for(int i = 0; i < banyak_mhs; i++) {
321:                     cout<<i+1<<" ". <<nama[i]<<endl;
322:                 }
323:                 int n;
324:                 cout<<" Masukkan Pilihan : "; cin>>n;
325:                 for(int i = n; i < banyak_mhs; i++) {
326:                     nama[i-1] = nama[i];
327:                     nim[i-1] = nim[i];
328:                     kelas[i-1] = kelas[i];
329:                 }
330:                 for(int j = n; j < banyak_mhs; j++) {
331:                     for(int k = 0; k < banyak_matkul; k++) {
332:                         nilai[j-1][k] = nilai[j][k];
333:                     }
334:                 }
335:                 for(int i = 0; i < banyak_matkul; i++) {
336:                     nilai[banyak_mhs-1][i] = 0;
337:                 }
338:                 banyak_mhs -= 1;
339:                 system("cls");
340:                 cout<<" Data Mahasiswa Berhasil Dihapus";
341:                 cin.get(); cin.get();
342:             } else {
343:                 cout<<"Data Mahasiswa Masih Kosong";
344:                 cin.get(); cin.get();
345:             }
346:         }else if (pilihan == 2) {
347:             system("cls");
348:             if(banyak_matkul > 0) {
349:                 cout<<" Data Mata Kuliah\\n";
350:                 cout<<" =====\\n";
351:                 for(int i = 0; i < banyak_matkul; i++) {
352:                     cout<<i+1<<" ". <<matkul[i]<<endl;
353:                 }
354:                 int n;
355:                 cout<<" Masukkan Pilihan : "; cin>>n;
356:                 for(int i = n; i < banyak_matkul; i++) {
357:                     matkul[i-1] = matkul[i];
358:                 }
359:                 for(int j = 0; j < banyak_mhs; j++) {

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360:         for(int k = n; k < banyak_matkul; k++) {
361:             nilai[j][k-1] = nilai[j][k];
362:         }
363:     }
364:     for(int i = 0; i < banyak_mhs; i++) {
365:         nilai[i][banyak_matkul-1] = 0;
366:     }
367:     banyak_matkul -= 1;
368:     system("cls");
369:     cout<<" Data Mata Kuliah Berhasil Dihapus";
370:     cin.get(); cin.get();
371:     } else {
372:         cout<<"Data Mata Kuliah Masih Kosong";
373:         cin.get(); cin.get();
374:     }
375: }else if (pilihan == 3) {
376:     break;
377: }
378: }while (true);
379: }
380:
381: void utama() {
382:     do {
383:         system("cls");
384:         int pilihan;
385:         cout<<"Menu Data Mahasiswa\n";
386:         cout<<"=====\n";
387:         cout<<"1. Input Data\n";
388:         cout<<"2. Lihat Data\n";
389:         cout<<"3. Edit Data\n";
390:         cout<<"4. Hapus Data\n";
391:         cout<<"5. Keluar\n";
392:         cout<<"=====\n\n";
393:         cout<<"Masukkan Pilihan : "; cin>>pilihan;
394:         if(pilihan == 1) {
395:             input();
396:         }else if(pilihan == 2) {
397:             lihat();
398:         }else if(pilihan == 3) {
399:             edit();
400:         }else if(pilihan == 4) {
401:             hapus();
402:         }else if(pilihan == 5) {
403:             break;
404:         }
405:     }while (true);
406: }
407:
408: int main() {
409:     int batas_login = 0;
410:     do {
411:         system("cls");
412:         login();
413:         if(username == "logika" and password == "algoritma") {
414:             system("cls");
415:             cout<<"Login Berhasil";
416:             batas_login = 0;
417:             cin.get();cin.get();
418:             utama();
419:         }else if(username != "logika" and password == "algoritma") {

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420:         system("cls");
421:         cout<<"Username Salah";
422:         batas_login++;
423:         cin.get();cin.get();
424:     }else if(username == "logika" and password != "algoritma") {
425:         system("cls");
426:         cout<<"Password Salah";
427:         batas_login++;
428:         cin.get();cin.get();
429:     }else {
430:         system("cls");
431:         cout<<"Username dan Password Salah";
432:         batas_login++;
433:         cin.get();cin.get();
434:     }
435: }while(batas_login < 3);
436:
437: if(batas_login == 3) {
438:     system("cls");
439:     cout<<"Anda Melebihi Batas Login (3X)";
440:     cin.get();cin.get();
441: }
442:
443: return 0;
444: }

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