program Tabel\_Mahasiswa;

{I.S. : User Memasukan Jumlah Mahasiswa dan Jumlah Matakuliah yang akan di buat tabel}

{F.S. : Menampilkan Index nilai Mahasiswa pada masing masing NIM}

uses crt;

//kamus global

Const

Maxbaris = 50;

Maxkolom = 7;

Type

Larik = array[1..Maxbaris] of string;

Larik2 = array[1..Maxbaris,1..Maxkolom] of integer;

Larik3 = array[1..Maxbaris,1..Maxkolom] of char;

var

matkul,nim : Larik;

nilai : Larik2;

baris,kolom : integer;

indeks : Larik3;

function Idx(Na : integer):char;

{I.S. : Nilai akhir telah terdefinisi }

{F.S. : Indeks nilai telah terdefinisi }

begin

case Na of

80..100 : Idx := 'A';

70..79 : Idx := 'B';

60..69 : Idx := 'C';

50..59 : Idx := 'D';

0..49 : Idx := 'E';

end;//endcase

end;

Procedure IsiData(var matkul,nim : larik; var baris,kolom : integer);

{I.S. : User Memasukan Jumlah Mahasiswa dan Jumlah Matakuliah yang akan di buat tabel}

{F.S. : Menampilkan Index nilai Mahasiswa pada masing masing NIM}

var

i,j,k:integer;

begin

Gotoxy(30,2);Write('Tabel Data Mahasiswa');

Gotoxy(25,4);Write('Masukan Jumlah Mahasiswa : ');Readln(baris);

//validasi mahasiswa

while((baris<1) or (baris>50)) do

begin

textcolor(red);gotoxy(10,5);Write('Masukan jumlah mahasiswa dari 1 - 50 ! Ulangi tekan Enter !');Readln;

gotoxy(1,5);Clreol;

gotoxy(54,4);Clreol;

textcolor(white);gotoxy(54,4);readln(baris);

end;//endwhile

Gotoxy(25,5);Write('Masukan Jumlah Mata Kuliah : ');Readln(kolom);

//validasi matakuliah

while((kolom<1) or (kolom>7)) do

begin

textcolor(red);gotoxy(10,6);Write('Masukan jumlah Mata Kuliah dari 1 - 7 ! Ulangi tekan Enter !');Readln;

gotoxy(1,6);Clreol;

gotoxy(54,5);Clreol;

textcolor(white);gotoxy(54,5);readln(kolom);

end;//endwhile

Clrscr;

Gotoxy(30,2);Write('Tabel Data Mahasiswa'); Gotoxy(5,5);Write('NIM');

Gotoxy(1,5);Write('|');

for i := 0 to kolom do

begin

Gotoxy((i+1)\*10-9,4);Write('----------');

Gotoxy((i+1)\*10-9,5);Write('|');

end;//endfor

Gotoxy((i+1)\*10,5);Write('|');

Textcolor(red);Gotoxy(4,7);Write('Masukan Mata Kuliah di kolom yang kosong terlebih dahulu ! OK tekan Enter !');Readln;

Gotoxy(1,7);Clreol;Textcolor(white);

//penutup

for j := 1 to kolom do

begin

Gotoxy(j\*10+2,5);Readln(matkul[i]);

end;//endfor

Gotoxy(1,5);Write('|');

for i := 0 to kolom do

begin

Gotoxy((i+1)\*10-9,4);Write('----------');

Gotoxy((i+1)\*10-9,5);Write('|');

end;//endfor

Gotoxy((i+1)\*10,5);Write('|');

//endinisialisasi

//inibaru

for i := 0 to kolom do

begin

Gotoxy((i+1)\*10-9,6);Write('----------');

end;

//write

Gotoxy(1,7);Write('|');

for i := 0 to kolom do

begin

Gotoxy((i+1)\*10-9,7);Write('|');

end;//endfor

for i := 1 to baris do

begin

Gotoxy((j+1)\*10,i+6);Write('|');

Gotoxy(2,i+6);Readln(nim[i]);

for j := 1 to kolom do

begin

Gotoxy((j+1)\*10-8,i+6);Readln(nilai[i,j]);

//validasi nilai jika >= 100 dan < 1

while((nilai[i,j] > 100) or (nilai[i,j] < 0)) do

begin

textcolor(red);gotoxy(1,i+7);Write('Jumlah nilai dimulai dari 0 - 100! Ulangi Tekan Enter !');Readln;

gotoxy(1,i+7);Clreol;

gotoxy((j+1)\*10-8,i+6);Write(' ');

textcolor(white);gotoxy((j+1)\*10-8,i+6);readln(nilai[i,j]);

end;//endwhile

indeks[i,j] := Idx(nilai[i,j]);

Gotoxy((j+1)\*10-8,i+6);write(' ');

Gotoxy((j+1)\*10-8,i+6);write(indeks[i,j]);

end;//endfor

if(i = baris)

then

begin

for k := 0 to kolom do

begin

Gotoxy((k+1)\*10-9,i+7);WriteLn('----------');

end;

end//endif

else

begin

Gotoxy(1,i+7);Write('|');

for k := 0 to kolom do

begin

Gotoxy((k+1)\*10-9,i+7);Write('|');

end;//endelse

end;//endfor

end;

end;//endprocedure

//Program Utama

begin

textcolor(white);

IsiData(matkul,nim,baris,kolom);

Readln;

end.