PROGRAM FOR BASE CONVERSION

#include<stdio.h>

#include<math.h>

#include<string.h>

#include<ctype.h>

long tod(char a[],int b)

{ int i,n=0,x,c=strlen(a);

for(i=0;a[i]!='\0';i++)

{ x=isdigit(a[i])?a[i]-48:a[i]-55;

if(x<b);

else

{ printf("wrong input");

return 0;

}

n=n+x\*pow(b,c-1-i);

}

return n;

}

void dto(long n,int tb)

{ int i;char x[17]="\0";

for(i=0;i<16;n=n/tb,i++)

x[15-i]=((n%tb)<10)?n%tb+48:n%tb+55;

printf("\n result = %s",x);

}

int main()

{ int b,tb;char q[17],ch='y';long n;

do

{ printf("\n enter no, base, target base ");

scanf("%s%d%d",&q,&b,&tb);

if(tb!=b)

{ n=tod(q,b);

if(n==0);

else dto(n,tb);

}

else printf("\n result = %s",q);

printf("\n want to enter more (y/n)");

scanf("\n%c",&ch);

}while(ch=='y'||ch=='Y');

return 0;

}

PROGRAM TO SEARCH FOR STRING IN FILE

#include<stdio.h>

#include<conio.h>

#include<string.h>

int main(int argc,char \*argv[])

{ FILE \*f1,\*f2;

char line[81],ch[20],ch1,ch2[20],xxx[20];

int flag1=1,flag=0,i,k,c=0,l=1,j=strlen(argv[2]);

f1=fopen(argv[1],"r"); f2=fopen("temp","w");

switch(argc)

{ case 2:printf("enter line to be searched");

gets(xxx); flag=1;

case 3:printf("want to replace or not");

scanf("\n%c",&ch1);

if(ch1=='y'||ch1=='Y')

{ printf("enter string");

gets(ch);

}

else flag1=0;

break;

case 4:strcpy(ch,argv[3]);

break;

default:printf("\n\nwrong arguments");

fclose(f1); fclose(f2);

return 1;

}

if(flag==1);

else strcpy(xxx,argv[2]);

j=strlen(xxx);

for(flag=0;flag!=1;l++)

{ for(i=0;i<80;i++)

{ line[i]=fgetc(f1);

if(line[i]==EOF)

{ line[i]='\0';

flag=1;

for(;i<80;i++)

line[i]='\0';

break;

}

}

{ for(i=0;i<80-j+1;i++)

{ if(line[i]=='\n'&&c<=80)

c=-1;

c++;

for(k=0;k<j;k++)

ch2[k]=line[i+k];

ch2[k]='\0';

if(flag1==1)

{ if(strcmp(ch2,xxx)==0)

{ fwrite(ch,strlen(ch),1,f2);

i+=j-1;

}

else fwrite(&line[i],1,1,f2);

}

else if(strcmp(ch2,xxx)==0)

printf("\nline %d col %d",l,c);

}

}

}

fclose(f1); fclose(f2);

getch();

return 0;

}

PROGRAM FOR SNAKE AND LADDER GAME

#include<stdio.h>

#include<conio.h>

#include<stdlib.h>

int sl[2][20],i=0;

int check(int b)

{ for(i=0;i<20;i++)

{ if(b==sl[0][i])

{ b=sl[1][i];

if(i<9) return 2;

else return 3;

}

}

return 4;

}

void main1()

{ int d=0,t=1,b=0,flag=0;

char ch;

randomize();

printf("\npress enter for dice roll");

printf("\nTurn No. \tDice No. \tAction \t\t\tBox Reached");

for(;b<=100;t++)

{ scanf("%c",&ch);

if(ch=='\n'||ch=='\r')

{ d+=random(6)+1;

if(flag==0)

{ if(d>3)

{ printf("%5d \t%12d \t\tgame starts \t\t%10d",t,d,1);

flag=1;b=1;d=0;

}

else printf("\n%5d \t%12d \t\tgame don't start",t,d);

}

else

{ flag=4;

b+=d;

if(d%6==0)

{ printf("%5d \t%12d \t\tone more turn",t,d);

t--;flag=6;b-=d;

}

else flag=check(b);

if(b>=100) flag=5;

}

switch(flag)

{ case 2:printf("%5d \t%12d \t\tsnake bit at %2d goto %2d",t,d,b,sl[1][i]);

b=sl[1][i];d=0;

break;

case 3:printf("%5d \t%12d \t\tclimb ladder at %2d goto %2d",t,d,b,sl[1][i]);

b=sl[1][i];d=0;

break;

case 4:printf("%5d \t%12d \t\tmove by %2d step \t%10d",t,d,d,b);

d=0;break;

case 5:printf("%5d \t%12d \t\tmove by %2d step \t%10d",t,d,d,b);

printf("\n\t\t\tgame ends");return;

}

}

else printf("\nwrong key pressed\n");

}

}

int main()

{ char ch,c[3];

int x=0,i=-1,flag=0;

FILE \*f;

clrscr();

f=fopen("c:\\xyz","r");

while((ch=fgetc(f))!=EOF)

{ if(ch==' ')

{ x++;flag=0;

}

if(flag==0)

switch(x)

{ case 1:i++;flag=1;break;

case 2:fscanf(f,"%[^:]%s",&c);

sl[0][i]=atoi(c);

flag=1;break;

case 3:fscanf(f,"%[^:]%s",&c);

sl[1][i]=atoi(c);

x=0;flag=1;

}

}

fclose(f);

main1();

getch();

return 0;

}

PROGRAM FOR FORMATTING OF A FILE

#include<stdio.h>

#include<string.h>

#include<conio.h>

int main(int agrc,char\* argv[])

{ FILE \*f1,\*f2,\*f;char ch1,ch2,ch3=0;

int i=-1,j=-1,k,a=0,l,once=0;

char st1[20]="\0",st2[20]="\0";

f1=fopen(argv[1],"r");

f2=fopen("temp","w");

for(;(ch1=fgetc(f1))!=EOF;)

{ printf("%c",ch1);

switch(ch1)

{ case '#':if(st1[i]=='\"'||st1[i]=='\'');

else fputc('\n',f2);

if(st1[i]=='>'||st1[i]=='\"') i--;

st1[++i]='#';

break;

case '<':if(st1[i]=='\"'||st1[i]=='\'');

if(st1[i]=='#') st1[++i]='<';

break;

case '>':if(st1[i]=='\"'||st1[i]=='\'');

if(st1[i]=='<'&&st1[i-1]=='#') i-=2;

st1[++i]='>';

break;

case '{':if(st1[i]=='\"'||st1[i]=='\'');

else

{ fputc('\n',f2);

st2[++j]='\t';ch3=1;

}

break;

case '}':if(st1[i]=='\"'||st1[i]=='\'');

else

{ if(st1[i]=='}') fputc('\n',f2);

st1[++i]='}';

ch3=1;

}

break;

case '(':if(st1[i]=='\"'||st1[i]=='\'');

else st1[++i]='(';

break;

case ')':if(st1[i]=='\"'||st1[i]=='\'');

else if(st1[i]=='(') i--;

break;

case ';':if(st1[i]=='\"'||st1[i]=='\'');

else

if(st1[i]=='(');

else

{ fputc(ch1,f2);

fputc('\n',f2);

once=1;ch3=1;

}

break;

case '\'':if(st1[i]=='\\');

else

{ if(st1[i]=='\'') i--;

else st1[++i]='\'';

}

break;

case '\"':if(st1[i]=='\\');

else

{ if(st1[i]=='\"')

if(st1[i-1]=='#') i-=2;

else i--;

else st1[++i]='\"';

}

break;

case '\\':if(st1[i]=='\\')

{ i--;ch2=0;

}

else

{ st1[++i]='\\';ch2='\\';

}

break;

case ' ':if(st1[i]=='\"'||st1[i]=='\'');

else if(st1[i]==' ')

once=1;

else st1[++i]=' ';

case '\n':if(st1[i]=='\"'||st1[i]=='\'');

else once=1;

case '\r':if(st1[i]=='\"'||st1[i]=='\'');

else once=1;

case '\t':if(st1[i]=='\"'||st1[i]=='\'');

else once=1;

break;

default:if(ch2=='\\'||st1[i]=='\\')

{ ch2=0;i--;

}

switch(st1[i])

{ case '>':if(st1[i-1]=='>')

{ i-=2;break; }

else { i--; break; }

case '}':fputc('\n',f2);

i--;ch3=1;

break;

case ' ':i--;break;

}

}

if(ch3==1)

{ for(k=j;k>=0;k--)

{ if(st2[k]!='\0')

{ if(st1[i]=='}');

else fputc(st2[k],f2);

if(a==0)

{if(st2[k]=='\t'&&ch1=='}')

{ for(l=k;l<j-1;l++)

st2[l]=st2[l+1];

st2[l]='\0';j--;

a++;

}

}

}

}

a=0;ch3=0;

}

if(once==0) fputc(ch1,f2);

else once=0;

}

fclose(f1);fclose(f2);

getch();

f=fopen("temp","r");

for(i=0;(ch1=fgetc(f))!=EOF;i++)

printf("%c",ch1);

fclose(f);

getch();

return 0;

}

PROGRAM TO SOLVE A SUDOKU

#include<stdio.h>

#include<conio.h>

int i,j,r,c,e[9][9],flag=0,a1[9],xxx=0;

int a[9]={1,2,3,4,5,6,7,8,9},flagr=0,flagf=0,flagc=0,q[9][9];

void checkr(int i1,int a)

{ int x;

for(xxx=0,x=3\*c;x<3+3\*c;x++)

if(e[i1][x]==1) xxx++;

if(xxx==3) flagr++;

else

for(x=0;x<9;x++)

if(q[i1][x]==a)

flagr++;

}

void checkc(int j1,int a)

{ int x;

for(xxx=0,x=3\*r;x<3+3\*r;x++)

if(e[x][j1]==1) xxx++;

if(xxx==3) flagc++;

else

for(x=0;x<9;x++)

if(q[x][j1]==a)

flagc++;

}

void chr(int a)

{ int k;

switch(j%3)

{ case 0:if(e[i][j+1]==1)

{ if(e[i][j+2]==1)

flag=1;

else for(k=0;k<9;k++)

if(q[k][j+2]==a)

flag=1;

}

else if(e[i][j+2]==1)

for(k=0;k<9;k++)

if(q[k][j+1]==a)

flag=1;

break;

case 1:if(e[i][j+1]==1)

{ if(e[i][j-1]==1)

flag=1;

else for(k=0;k<9;k++)

if(q[k][j-1]==a)

flag=1;

}

else if(e[i][j-1]==1)

for(k=0;k<9;k++)

if(q[k][j+1]==a)

flag=1;

break;

case 2:if(e[i][j-1]==1)

{ if(e[i][j-2]==1)

flag=1;

else for(k=0;k<9;k++)

if(q[k][j-2]==a)

flag=1;

}

else if(e[i][j-2]==1)

for(k=0;k<9;k++)

if(q[k][j-1]==a)

flag=1;

break;

}

if(flag==1)

{ flagf=1;

q[i][j]=a;

e[i][j]=1;

}

}

void chc(int a)

{ int k;

switch(i%3)

{ case 0:if(e[i+1][j]==1)

{ if(e[i+2][j]==1)

flag=1;

else for(k=0;k<9;k++)

if(q[i+2][k]==a)

flag=1;

}

else if(e[i+2][j]==1)

for(k=0;k<9;k++)

if(q[i+1][k]==a)

flag=1;

break;

case 1:if(e[i+1][j]==1)

{ if(e[i-1][j]==1)

flag=1;

else for(k=0;k<9;k++)

if(q[i-1][k]==a)

flag=1;

}

else if(e[i-1][j]==1)

for(k=0;k<9;k++)

if(q[i+1][k]==a)

flag=1;

break;

case 2:if(e[i-1][j]==1)

{ if(e[i-2][j]==1)

flag=1;

else for(k=0;k<9;k++)

if(q[i-2][k]==a)

flag=1;

}

else if(e[i-2][j]==1)

for(k=0;k<9;k++)

if(q[i-1][k]==a)

flag=1;

break;

}

if(flag==1)

{ flagf=1;

q[i][j]=a;

e[i][j]=1;

}

}

void check(int a)

{ int k;

flagf=flagr=flagc=0;

for(k=0;k<9;k++)

{ if(q[i][k]==a)

flagf=1;

if(q[k][j]==a)

flagf=1;

}

if(flagf==0)

switch(i%3)

{ case 0:checkr(i+1,a);

checkr(i+2,a);

break;

case 1:checkr(i+1,a);

checkr(i-1,a);

break;

case 2:checkr(i-1,a);

checkr(i-2,a);

break;

}

if(flagr==2)

chr(a);

if(flagf==0)

switch(j%3)

{ case 0:checkc(j+1,a);

checkc(j+2,a);

break;

case 1:checkc(j+1,a);

checkc(j-1,a);

break;

case 2:checkc(j-1,a);

checkc(j-2,a);

break;

}

if(flagc==2)

chc(a);

if(flagr>=2&&flagc>=2)

{ q[i][j]=a;

flag=1;

e[i][j]=1;

}

}

int main()

{ int k,r1,xx=0;

printf("\n Enter a sudoku\n");

for(i=0;i<9;i++)

for(j=0;j<9;j++)

scanf("\n%d",&q[i][j]);

for(i=0;i<9;i++)

for(j=0;j<9;j++)

if(q[i][j]==0)

{ e[i][j]=0;

}

else e[i][j]=1;

for(r1=0;r1<16;r1++)

{ for(r=0;r<3;r++)

for(c=0;c<3;c++)

{ for(k=0;k<9;k++)

a1[k]=a[k];

for(i=3\*r;i<3+3\*r;i++)

for(j=3\*c;j<3+3\*c;j++)

if(e[i][j]==1)

for(k=0;k<9;k++)

if(a1[k]==q[i][j])

{ a1[k]=0;

break;

}

for(k=0;k<9;k++)

{ if(a1[k]==0);

else

{ for(i=3\*r;i<3+3\*r;i++)

for(j=3\*c;j<3+3\*c;j++)

if(flag==0)

if(e[i][j]==1);

else check(a1[k]);

else

{ a1[k]=0;

if(flag==1)

{ xx++;

for(i=0;i<9;i++)

{ for(j=0;j<9;j++)

printf("%d",q[i][j]);

printf("\n");

}

flag=0;

printf("\n%d\n",xx);

getch();

}

}

}

}

}

}

return 0;

}