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| |  |  |  |  | | --- | --- | --- | --- | | //program for Sudoku generation   |  | | --- | | int main(){  int b=1,i,j,e,d;.  int sudoku[9][9],flag[9][9];  for(i=0;i<9;i++){  for(j=0;j<9;j++){ //initializing the flag  flag[i][j]=0;  }  }  while(b==1){  i=rand()%9;  j=rand()%9; //calling randomly the box number  }  if(flag[i][j])==1)  continue;  flag[i][j]=1;  b=chflag(sudoku);  for(k=1;k<10;k++){  sudoku[i][j]=k;  a=chrow (i,sudoku,b);  e=chcol(j,sudoku,b);  d=chmatrix(i,b,j,sudoku); //checking correct position of insert value  if(a==0&&e==0&&d==0)  break;  }  //program for Sudoku generator #include<iostream>  #include<cstdlib>  #include<cstdio>  using namespace std;  int chmatrix (int i,int b,int j,int sudoku[9][9]){  int m,n,t,l=0;  if (i%3==0) //checking the 3x3 matrix for a given box  m=i;  else if(i%3==1)  m=i-1;  else if(i%3==2)  m=i-2;  if (j%3==0)  n=j;  else if(j%3==1)  n=j-1;  else if(j%3==2)  n=j-2;  for(i=m;i<m+3,l<2;i++){  for(j=n;j<n+3;j++){  if(sudoku[i][j]==b)  l++;  if(l>1)  break;  }  }  if(l==1)  return 0;  else return 1;  }  int chrow(int i,int sudoku[9][9],int b){ //checking row  int l=0,j;  for(j=0;j<9;j++){  if(sudoku[i][j]==b)  l++;  if(l>1)  break;  }  if(l==1)  return 0;  else return 1;  }  int chcol(int j,int sudoku[9][9],int b){ //checking column  int l=0c==,i;  for(i=0;i<9;i++){  if(sudoku[i][j]==b)  l++;  if(l>1)  break;  }  if(l==1)  return 0;  else return 1;  }  int main(){  int sudoku[9][9];  int i,j,k,l,a,b,d,m,c,flag[9],B[9]={1,2,3,4,5,6,7,8,9};  for(i=0;i<9;i++){  for(j=0;j<9;j++){  sudoku[i][j]=0;} //initializing all values to zero  }  for(i=0;i<9;i++){  for(j=0;j<9;j++){  l=0;m=9;flag[9];c=rand()%m;  for(t=0;t<9;t++)  flag[t]=0;  for(k=0;k<9;k++){  if(flag[k]==1)  continue;  else if(l==c){  flag[k]=1;  m--;  sudoku[i][j]=B[k];  a=chrow (i,sudoku,b);  b=chcol(j,sudoku,b);  d=chmatrix(i,b,j,sudoku);  if(a==0&&b==0&&d==0)  break;  else{  c=rand()%m;  continue;  }  }  else  l++;  }  }  }  for(i=0;i<9;i++){  for(j=0;j<9;j++){  cout<<sudoku[i][j];  }  cout<<endl;  }  return 0;  }  int main()//main function for user puzzle generation  int Sudoku[9][9];  int x=81,i,j,mask[9][9],cnt,flag,b;  for(i=0;i<9;i++){  for(j=0;j<9;j++){  cout<<"hh";  cin>>Sudoku[i][j];  }  }  while(x!=1){  flag=1;  cnt=rand()%x;  for(i=0;i<9;i++){  for(j=0;j<9;j++){  mask[i][j]==0  }  }  for(i=0;i<9&&flag==1;i++){  for(j=0;j<9;j++){  if(mask[i][j]==0)  continue;  if(cnt==0){  mask[i][j]=0;  b=Sudoku[i][j];  mat[i][j]=0;  if(sudokuSolver()==0)  Sudoku[i][j]=b;  flag=0;  x--;  }  cnt--;  }  }  } | |  | |  | | |