ASSIGNMENT- 7 (1) #include < iostream> using normerpare std; void read(graph (int *+ graph, int) { contec" Entre matrin = "; for (int i=0; icn; i++) { for (mt grouph [i] = new int [n]; for (int j=0; j<n; j++) { in >> graph [i][j]; boot is Safe (int * graph, int n, int * color, int n, int c) { for (int i=0; icn; i++)} if (graph [v][i] & & c==colon(i]) return fabre; return true; bod graph Coloning Util (int mygraph, int n, int a dolor, int v) { W (v==n) return time; for (int c=0; c Z 3; c++) { y (issafe (graph, n, volour, v, c)) { colon[v]= C; if (graph Coloning Util (grouph, n, colon, v+1)) { rutum time; volon [v] = -1; nden false;

word graph Colourny (int * groups, int 1) { mt * coton = new "not [n]; fre (inti=0; icn; i+1)
color[i]=-1; colon [0] = 0; (graph Coloning Util (graph, n, colon, 1)) } cont <<" Verden coms"; for (inti= 0; icn; i++){ if (who (i) = = 0) confK < "Red"; else if (who (i) == 1) cont ce "Blue"; else if (colon[i] == 2) cont << " Green "; cout < c" Not valid"; int main () } int n; um >>n; ind ** graph = new int * [17]; read Graph (graph, n); graph Coloning (gaph, n);. return 0;

OUTPUT

Vertex O is coloured with Red Vertex 1 is coloured with Red Vertex 2 is coloured with Red Vertex 3 is coloured with Green Vertex 4 is coloured with Green Vertex 5 is coloured with Green 2 # include < iortham > # include < windows . h > winy normerpare std; void read (graph (int ** graph, int n) } for (aut i=0; icn; i++) { graph [i] = new int [n]; for (int j=0; jen; j+1) in>> graph(i)[17; bool is Safee (int my grouph, int n, int so color, int n; nutc) { for (inti=0; icn; 1+1) { if graph [v][i] & & c = colon[i]) retain false; ¿ hutum time; bool graph Coloning Util (int one graph, int or, int + colon, int v) } y (v==n) rutum trui; for (int c=0; c<3; c+1){ if (issafe (graph, n,color, v,c)) { colon[v]=c; if (graph Coloning Util (grouph, n, color, V+1))} ?volon[v]=-1; inton false; void graphColorny (int * graph, int n) {
int * color = but [n]; for (int i=0; icn; i++) wlow [i]=-1;

color[0]=0; if (graph Coloning Utill (graph, n, colon, 1)) } contec" Vertin colons:"; ba (ind i=0; icn; i+7)} if (wlon [i] == 0) cond << "Red"; use if (wolon(i)==1) coutece "Blue"; elny (don(i)==2) outce "Green"; 'elre conte Not valid"; void alarm (int seconds) } contec" Alam set for "econolis ec "s"; Beep (500,5000); cont cc 'Alarn Rang! 'Ecenell; ind main () { ind n; ind * a grouph = new into [in]; mad Gruph (graph, 1); alann (5) 3 graph Coloning (graph, n); rutum 0;

OUTPUT

Alan set for 5 seconds Alann Rang!

Rid with colonied with Blue coloned Vertex with hed coloured Vertex 2 with Grun coloned Vertex 3 with Blue colound Vertex 4 with coloured Vertex