***THE SNAKE GAME***

**#include<graphics.h>**

**#include<time.h>**

**#include<stdio.h>**

**#include<windows.h>**

**#include<stdlib.h>**

**int endfunc(int e , int a);**

**int main()**

**{**

**int gd ,gm ,rx=200 ,ry=200 ,d = 1 ;**

**int speed = 5;**

**int colour = 1 ;**

**int x[200] = {0} , y[200] = {0};**

**x[0]=200,y[0]=200; //initial coordinate**

**int f =1; //f = food**

**int chk = 700; //check**

**int dir = 1; //Initial direction in right**

**detectgraph(&gd,&gm); //DETECTING THE GRAPHICS DRIVE AVALIABLE**

**initgraph(&gd,&gm,""); //FORMING THE GRAPHICS CONSOLE**

**srand(time(0)); //To randomize the coordinate of the food.**

**int length = 1; //Initial length of snake**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,0);**

**outtextxy(100,220,"Press any key to start the game.");**

**outtext("Welcome to the Snake game.");**

**moveto(0, 20);**

**outtext("Don't touch the Wall and Don't try to eat yourself.");**

**moveto(0, 40);**

**outtext("ENJOY");**

**getch();**

**setviewport(0,0,640,480,1);**

**for(;;)**

**{**

**setfillstyle(1,0); //for creating the background black**

**bar(0,0,640,480);**

**setfillstyle(1,7); //creating the boundaries**

**bar(0,0,640,10);**

**bar(0,0,10,480);**

**bar(0,480,640,470);**

**bar(630,10,640,480);**

**// food taken**

**if(x[0]==rx && y[0]==ry )**

**{**

**length++;**

**colour++; //changing the colours of the food.**

**f=f+1; // incrementing the food value**

**setfillstyle(1,0); //BLACK FILLSTYLE ..hence we are putting a black box over it to make it disappear.**

**bar(rx,ry,rx+10,ry+10); //it will be a block of (10 x 10) but its position is going to change**

**do //creating random location**

**{**

**rx = (10+rand()%620);**

**ry = (10+rand()%460);**

**}while(getpixel(rx,ry)!=0 && rx > 10&& ry > 10); //As the food cannot appear on the boundary/wall.**

**//making it multiple of 10 as its a block of 10 x 10 else it will change its shape.**

**//also this will divide the screen into the blocks of 10.**

**rx=rx/10;**

**rx=rx\*10;**

**ry=ry/10;**

**ry=ry\*10;**

**}**

**if(15 <= colour)**

**colour = 1;**

**setfillstyle(1,colour);**

**bar(rx,ry,rx+10,ry+10);**

**setfillstyle(1,5);**

**//for detecting the key presses.**

**if(dir == 1)**

**{**

**//initially in this state snake is moving right so left key is stroke is disabled**

**if(GetAsyncKeyState(VK\_RIGHT)){d=1;}**

**else if(GetAsyncKeyState(VK\_UP)){ d=3;}**

**else if(GetAsyncKeyState(VK\_DOWN)) {d=4;}**

**else{d=0;}**

**}else if(dir == 2)**

**{**

**// In this state snake is moving in left so right key is stroke is disabled**

**if(GetAsyncKeyState(VK\_LEFT)){ d=2;}**

**else if(GetAsyncKeyState(VK\_UP)){ d=3;}**

**else if(GetAsyncKeyState(VK\_DOWN)) {d=4;}**

**else{d=0;}**

**} else if(dir == 3)**

**{**

**//In this state snake is moving up so down key stroke is disabled**

**if(GetAsyncKeyState(VK\_RIGHT)){d=1;}**

**else if(GetAsyncKeyState(VK\_LEFT)){ d=2;}**

**else if(GetAsyncKeyState(VK\_UP)){ d=3;}**

**else{d=0;}**

**}else if(dir == 4)**

**{**

**//In this state snake is moving down so up key stroke is disabled**

**if(GetAsyncKeyState(VK\_RIGHT)){d=1;}**

**else if(GetAsyncKeyState(VK\_LEFT)){ d=2;}**

**else if(GetAsyncKeyState(VK\_DOWN)) {d=4;}**

**else{d=0;}**

**}**

**switch(d)**

**{**

**case 0: *//default case when no key is pressed.***

**if(dir==1){x[0]=x[0]+(10 );}**

**else if(dir==2){x[0]=x[0]-(10);}**

**else if(dir==3){ y[0]=y[0]-(10);}**

**else if(dir==4) {y[0]=y[0]+(10);}**

**break;**

**case 1: *//when Right arrow key is pressed the logic for it***

**x[0]=x[0]+10;**

**dir=1;**

**break;**

**case 2: *//when left arrow key is pressed the logic for it***

**x[0]= x[0]-10;**

**dir=2;**

**break;**

**case 3: *//when up arrow key is pressed the logic for it***

**y[0]=y[0]-10;**

**dir=3;**

**break;**

**case 4: *//when down key is pressed the logic for it***

**y[0]= y[0]+10;**

**dir=4;**

**break;**

**}**

**for(int i = 0; i < length;i++) *//for printing/displaying the snake.***

**{**

**bar(x[i],y[i],x[i]+10,y[i]+10);**

**}**

**for(int i= 199; i >0;i--)**

**{**

**x[i] = x[i-1];**

**y[i] = y[i-1];**

**}**

**delay(100);**

**if(x[0] >= 630 || x[0]<=10|| y[0]<=10 || y[0]>=470)**

**{**

**endfunc(f,0);**

**break;**

**}**

***//if snake try's to eat itself.***

**for(int i = 2; i < length;i++)**

**{**

**if(x[0] == x[i] && y[0] == y[i])**

**{**

**chk = i;**

**break;**

**}**

**}**

**if(x[0] == x[chk] && y[0] == y[chk])**

**{**

**endfunc(f,1);**

**break;**

**}**

**}**

**}**

**//when you touch the wall and your own body**

**int endfunc(int e,int a)**

**{**

**setfillstyle(1,5);**

**e=e-2;**

**bar(0,0,640,470);**

**system("cls");**

**if(a == 0){**

**printf("You died outside the boundary!!!\n");**

**}**

**else if(a== 1){**

**printf("You bite yourself gg !!!\n");**

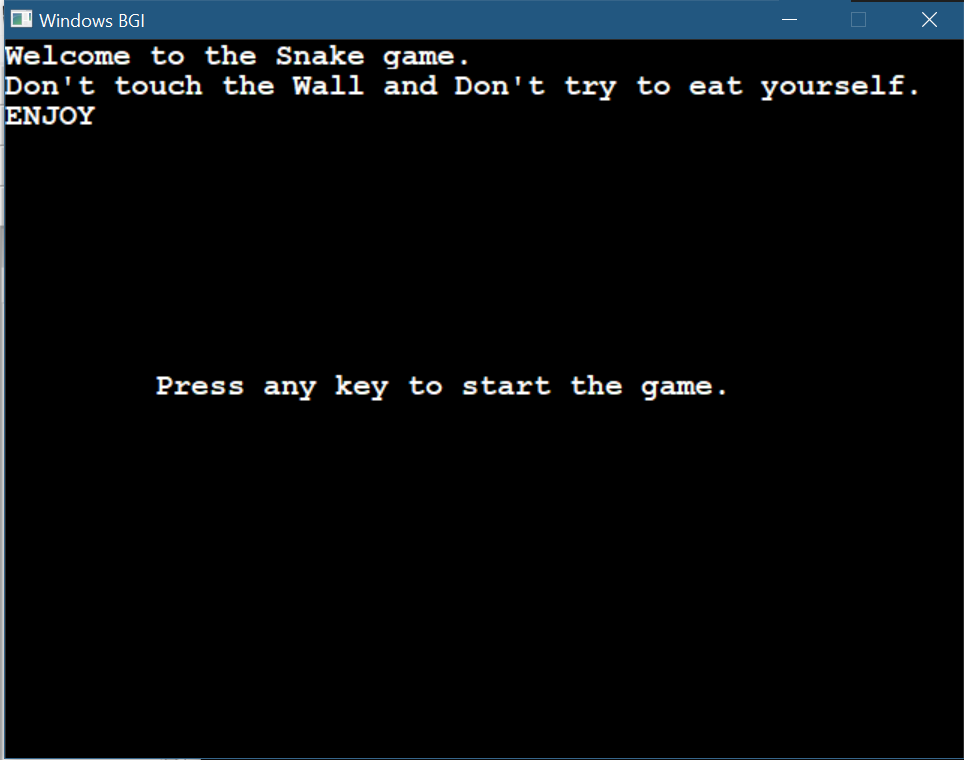
**}**

**printf("Your score is : %d\n", e);**

**getch();**

**return 0;**

**}**

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