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 /* ******************SNAKE GAME **********************
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 */




#include<stdio.h>
#include<conio.h>
#include<stdlib.h>

int width=20 ;
int height=20;  // global variable as we are using in different functions for
the same variables value
int x,y ;
int fruitX,fruitY;
int score;
int gameover;
int flag ;
int tailX[100];
int tailY[100];
int countTail=0;

void set_up()   // to set the initial value of every variable
{

    gameover=0;
    x=width/2;         // dimensions of the box
    y=height/2;

    label1:

    fruitX=rand()%20 ; // rand function is used for getting fruit at random po
sitions wihtin those boundaries
    if(fruitX==0)
    goto label1 ;      // goto function is used to jump to a particular functi
on (label)

    label2:

    fruitY=rand()%20 ;
    if(fruitY==0)
    goto label2 ;

    score=0;
```

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}

void draw()    // fucntion to make boundaries
{

    int i,j,k;

    system("cls");  // cls is used so that to clear the previous code(screen)
and we get a clear boundaries

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

         for(j=0;j<height;j++)
        {
         if(i==0||i==height-1||j==0||j==width-1)
        {
            printf("#");
        }
         else
        {
             if(i==x && j==y)
            {
                printf("o");
            }
             else if(i==fruitX && j==fruitY)
            {
                printf("F");
            }
             else

            {   int ch=0 ;

                for (k=0;k<countTail;k++)
                {
                    if(i==tailX[k] && j==tailY[k])
                    {
                        printf("o");
                        ch=1 ;
                    }
                }
                if(ch==0)
                printf(" ");
            }

        }
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        }
        printf("\n");
    }

         printf("score=%d",score) ;


}

void input(){

    if(kbhit())
    {
       switch(getch())
       {
        case 'a' :
            flag=1;
            break;
        case 's':
           flag=2;
           break ;
        case 'w':
           flag =3;
           break;
        case 'z':
           flag=4;
           break;

        case 'L':
           gameover=1 ;

       }
    }
}

void Make_logic()

{
    int i ;
    int prevX=tailX[0];
    int prevY=tailY[0];

    int prev2X ;
    int prev2Y ;

    tailX[0]=x ;
    tailY[0]=y ;
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for(i=1;i<countTail;i++)
{

    prev2X=tailX[i];
    prev2Y=tailY[i];
    tailX[i]=prevX;
    tailY[i]=prevY;
    prevX=prev2X;
    prevY=prev2Y;

}



switch(flag)
{
    case 1:
       y-- ;
       break;
    case 2:
       y++ ;
       break;
    case 3:
       x-- ;
       break ;
    case 4:
       x++ ;
       break ;

    default :
      break ;
}

if (x<0||x>width||y<0||y>height)
{
    gameover=1;
    for(i=0;i<countTail;i++)
    {
        if(x==tailX[i] && y==tailY[i])
        gameover=1;
    }
}

if (x==fruitX && y==fruitY)
{
    label3:

 fruitX=rand()%20 ;
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     if(fruitX==0)
     goto label3 ;

     label4:

     fruitY=rand()%20 ;
     if(fruitY==0)
     goto label4 ;

     score+=10 ;

     countTail++ ;

    }



}

int main()
{
    char c ;
    label5 :

    set_up();

    while(!gameover)

    {
        draw();
        input();
        Make_logic();

        for(int m=0;m<1000;m++)
        {
            for(int n=0;n<10000;n++)
            {

            }
        }

        for(int m=0;m<1000;m++)
        {
            for(int n=0;n<10000;n++)
            {

            }
        }
```

```
        for(int m=0;m<1000;m++)
        {
            for(int n=0;n<10000;n++)
            {

            }
        }
        for(int m=0;m<1000;m++)
        {
            for(int n=0;n<10000;n++)
            {

            }
        }

    }

    printf("\n press Y to continue again:");
    scanf("%c" , &c);

    if(c=='y'||c=='Y')
     goto label5 ;


   return 0 ;
}
```