Snake.cpp:

```
#include <iostream>
#include <conio.h>
#include <windows.h>
using namespace std;
bool gameOver;
const int width = 20;
const int height = 20;
int x, y, fruitX, fruitY, score;
int tailX[100], tailY[100];
int nTail;
enum eDirecton { STOP = 0, LEFT, RIGHT, UP, DOWN };
eDirecton dir;
void Setup()
{
   gameOver = false;
   dir = STOP;
   x = width / 2;
   y = height / 2;
   fruitX = rand() % width;
   fruitY = rand() % height;
   score = 0;
}
void Draw()
{
```

```
system("cls");
for (int i = 0; i < width + 2; i++)
   cout << "#";
cout << endl;


for (int i = 0; i < height; i++)
{
   for (int j = 0; j < width; j++)
   {
      if (j == 0)
         cout << "#";
      if (i == y && j == x)
         cout << "O";
      else if (i == fruitY && j == fruitX)
         cout << "F";
      else
      {
         bool print = false;
         for (int k = 0; k < nTail; k++)
         {
            if (tailX[k] == j && tailY[k] == i)
            {
               cout << "o";
               print = true;
            }
```

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            }
            if (!print)
                cout << " ";
        }

        if (j == width - 1)
            cout << "#";
    }
    cout << endl;
  }

  for (int i = 0; i < width + 2; i++)
    cout << "#";
  cout << endl;
  cout << "Score:" << score << endl;
}
void Input()
{
  if (_kbhit())
  {
    switch (_getch())
    {
    case 'a':
      dir = LEFT;
      break;
```

```
        case 'd':
            dir = RIGHT;
            break;
        case 'w':
            dir = UP;
            break;
        case 's':
            dir = DOWN;
            break;
        case 'x':
            gameOver = true;
            break;
        }
    }
}
void Logic()
{
    int prevX = tailX[0];
    int prevY = tailY[0];
    int prev2X, prev2Y;
    tailX[0] = x;
    tailY[0] = y;
    for (int i = 1; i < nTail; i++)
    {
        prev2X = tailX[i];
```

```
    prev2Y = tailY[i];
    tailX[i] = prevX;
    tailY[i] = prevY;
    prevX = prev2X;
    prevY = prev2Y;
}
switch (dir)
{
case LEFT:
    x--;
    break;
case RIGHT:
    x++;
    break;
case UP:
    y--;
    break;
case DOWN:
    y++;
    break;
default:
    break;
}

if (x >= width) x = 0; else if (x < 0) x = width - 1;
```

```
    if (y >= height) y = 0; else if (y < 0) y = height - 1;


    for (int i = 0; i < nTail; i++)
        if (tailX[i] == x && tailY[i] == y)
            gameOver = true;


    if (x == fruitX && y == fruitY)
    {
        score += 10;
        fruitX = rand() % width;
        fruitY = rand() % height;
        nTail++;
    }
}
int main()
{
    Setup();
    while (!gameOver)
    {
        Draw();
        Input();
        Logic();
        Sleep(10);
    }
    return 0;
```

```
}
```

Compile the Code:

```
g++ snake.cpp -o snake
```

Run:

```
snake
```