A puzzle

Can you find the code in the gameWindow that deals with a keydown event?

Write the one line of code in that event handler here:

Can you find the function that the line above runs in game.cs?

Can you find the code that deals with what happens when the left arrow key is pressed.

Write the code here (hint: there are three lines of code for dealing with left arrow key pressed).

Can you add a case for the keypress being a space using the code under here?

case Keys.Space:

openTrapDoor();

break;

Can you find the FUNCTION that removes the food? (Hint: it should be at the bottom of the game.cs code)

Copy it in here

Can you add a function underneath the function that removes the food and call it:

private void openTrapDoor()

{

}

Can you write the following in C# to make the openTrapDoor() function work?

private void openTrapDoor()

{

get a copy of the current grid (see removeFood())

x = mainCharacter.xPos

y = mainCharacter.yPos

if mainCharacter.currentDirection is equal to DCActor.direction.left

subtract 1 from x

else if mainCharacter.currentDirection is equal to DCActor.direction.right

add 1 to x

else if mainCharacter.currentDirection is equal to DCActor.direction.up

subtract 1 from y

else if(mainCharacter.currentDirection is equal to DCActor.direction.down)

add 1 to y

//end of if

if levelObjects[x, y] contains Game.gridObjects.obstacle

levelObjects[x, y] = Game.gridObjects.obstacleOpen

//end of if

}

Can you find the code that sets up the different type of object in the grid?

Add obstacleOpen to this list. Write it down here:

Test the new code – does it turn the trap door black? Why does it do this?

Add the following lines of code to the gameEngine to deal with the changing trapdoor image (think carefully about where they go – each is in a different function):

private Bitmap DCOpenObstacle;

DCOpenObstacle = DarkCollege.Properties.Resources.obstacleOpen;

case Game.gridObjects.obstacleOpen:

frameGraphics.DrawImage(DCOpenObstacle, x \* Game.TILE\_SIZE, y \* Game.TILE\_SIZE);

break;

YOU MUST ADD THE open trap door image to the resources (and make sure it is called obstacleOpen) or this won’t work.

CAN YOU ADD A SOUND (obstacle.wav) for when the trap door is opened?