CSE1322L Lab 1

Background:

In this lab, you are going to draw some Ascii Art using a two dimensional array. When dealing with multi-dimensional arrays, you'll typically use nested loops (i.e. a loop within a loop). The outer loop typically iterates over the rows of the array, while the inner loop typically iterates over the columns.

A two dimensional array uses two indexes. The first index represents the row number, while the second index represents the column. For example: myArray[0][1] refers to the first row (0) and the second column (1).

Your Tasks:

1) Open your IDE and start a new project.
2) Copy and paste the appropriate version of the make_forward() method from page 3 below. This method creates and returns a two dimensional array of characters with some Ascii Art in it.
3) In your main method, create a two dimensional array of characters with 4 rows and 13 columns.
4) Call the make_forward() method and store the result in your new array.
5) Using loops, print out the array contents character by character. You should see Ascii Art.
6) Write a new method called make_mirror(). It should take a two dimensional array as a parameter and return a mirrored version of that 2D array. i.e. The contents of each row should be reversed as follows:
    a) In:

        a)

Java	C#
| ```java
public static char[][] make_forward()
 {
  char[][] pixel = new char[4][13];
  pixel[0][0]=' ';
  pixel[0][1]=' ';
  pixel[0][2]='_';
  pixel[0][3]='_';
  pixel[0][4]='_';
  pixel[0][5]='_';
  pixel[0][6]='_';
  pixel[0][7]='_';
  pixel[0][8]=' ';
  pixel[0][9]=' ';
  pixel[0][10]=' ';
  pixel[0][11]=' ';
  pixel[0][12]=' ';
  pixel[1][0]=' ';
  pixel[1][1]='/';
  pixel[1][2]='|';
  pixel[1][3]='_';
  pixel[1][4]='|';
  pixel[1][5]='|';
  pixel[1][6]='_';
  pixel[1][7]='\\';
  pixel[1][8]='\';
  pixel[1][9]='.';
  pixel[1][10]='_';
  pixel[1][11]='_';
  pixel[1][12]=' ';
  pixel[2][0]='(';
  pixel[2][1]=' ';
  pixel[2][2]=' ';
  pixel[2][3]=' ';
  pixel[2][4]='_';
  pixel[2][5]=' ';
  pixel[2][6]=' ';
  pixel[2][7]=' ';
  pixel[2][8]=' ';
  pixel[2][9]='_';
  pixel[2][10]=' ';
  pixel[2][11]='_';
  pixel[2][12]='\\';
  pixel[3][0]='=';
  pixel[3][1]='\';
  pixel[3][2]='-';
  pixel[3][3]='(';
  pixel[3][4]='_';
  pixel[3][5]=')';
  pixel[3][6]='-';
  pixel[3][7]='-';
  pixel[3][8]='(';
  pixel[3][9]='_';
  pixel[3][10]=')';
  pixel[3][11]='-';
  pixel[3][12]='\';
  return pixel;
 }
``` | ```csharp
public static char[,] make_forward()
{
  char[,] pixel = new char[4,13];
  pixel[0,0]=' ';
  pixel[0,1]=' ';
  pixel[0,2]='_';
  pixel[0,3]='_';
  pixel[0,4]='_';
  pixel[0,5]='_';
  pixel[0,6]='_';
  pixel[0,7]='_';
  pixel[0,8]=' ';
  pixel[0,9]=' ';
  pixel[0,10]=' ';
  pixel[0,11]=' ';
  pixel[0,12]=' ';
  pixel[1,0]=' ';
  pixel[1,1]='/';
  pixel[1,2]='|';
  pixel[1,3]='_';
  pixel[1,4]='|';
  pixel[1,5]='|';
  pixel[1,6]='_';
  pixel[1,7]='\\';
  pixel[1,8]='\';
  pixel[1,9]='.';
  pixel[1,10]='_';
  pixel[1,11]='_';
  pixel[1,12]=' ';
  pixel[2,0]='(';
  pixel[2,1]=' ';
  pixel[2,2]=' ';
  pixel[2,3]=' ';
  pixel[2,4]='_';
  pixel[2,5]=' ';
  pixel[2,6]=' ';
  pixel[2,7]=' ';
  pixel[2,8]=' ';
  pixel[2,9]='_';
  pixel[2,10]=' ';
  pixel[2,11]='_';
  pixel[2,12]='\\';
  pixel[3,0]='=';
  pixel[3,1]='\';
  pixel[3,2]='-';
  pixel[3,3]='(';
  pixel[3,4]='_';
  pixel[3,5]=')';
  pixel[3,6]='-';
  pixel[3,7]='-';
  pixel[3,8]='(';
  pixel[3,9]='_';
  pixel[3,10]=')';
  pixel[3,11]='-';
  pixel[3,12]='\';
  return pixel;
}
``` |