# **Assignment 23: Patterns**

## Goals

- 1. Learn how to modify and display a ColorGrid using Bridges
- 2. Learn how to set/change colors for each pixel in the grid
- 3. Practice using simple loops to display patterns using the BRIDGES ColorGrid data structure

# ColorGrid

The BRIDGES ColorGrid class is an abstraction for representing 2D images. It serves as a convenient way to display operations on images or other two dimensional structures. A similar structure is used in the BRIDGES Game API.

#### **Assignement**

- Use Bridges ColorGrid to display a simple pattern
- Call ColorGrid.set() method to set the color of a pixel in the grid (the color is passed as a generic of the class to the method)
- Loop through the grid and set each pixel to match a pattern

#### **Examples**

- Checker board, display 2 colors in an alternating checker board pattern or something thats interesting or relevant to you, your school's colors, mascot, team.
- Frame, display a frame around the entire board with the center filled
- Quadrants, Cut the image in four quadrants of different colors
- Or make a customized pattern of your own

#### Help

#### for C++

ColorGrid documentation

Color documentation

**Bridges documentation** 

#### for Java

ColorGrid documentation

Color documentation

Bridges class documentation

### for Python

ColorGrid documentation

Color documentation

**Bridges documentation**