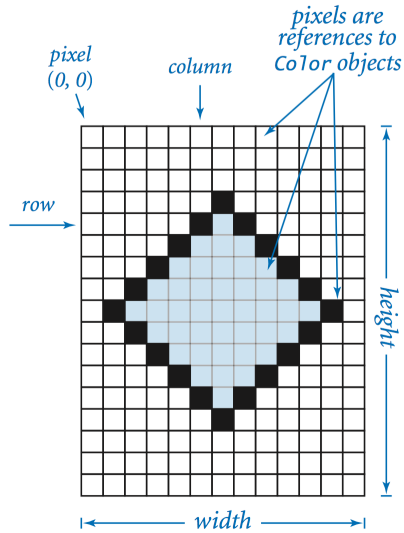


Image processing

In this project, you will implement code to process digital images. A *digital image* is a rectangular grid of *pixels* (picture elements), where the color of each pixel is individually defined. In this project, we work with the types of images are referred to as *vector* images.



We provided a data type called `Picture`. The `Picture` data type allows you to manipulate digital images. You can load an image file using

```
Picture pic = new Picture(fileName);
```

Once loaded, you can manipulate the image using. For example: set the value of a pixel to a given color, and extract the color of a given pixel. The following API summarizes the available operations:

```
public class Picture
```

<code>Picture(String filename)</code>	<i>create a picture from a file</i>
<code>Picture(int w, int h)</code>	<i>create a blank w-by-h picture</i>
<code>int width()</code>	<i>return the width of the picture</i>
<code>int height()</code>	<i>return the height of the picture</i>
<code>Color get(int col, int row)</code>	<i>return the color of pixel (col, row)</i>
<code>void set(int col, int row, Color color)</code>	<i>set the color of pixel (col, row) to color</i>
<code>void show()</code>	<i>display the picture in a window</i>
<code>void save(String filename)</code>	<i>save the picture to a file</i>

Most image-processing programs are filters that scan through all of the pixels in a source image and then perform some computation to determine the color of each pixel in a target image. In this project, you will implement code to flip (mirror) an image. For example:

Original Image:



Mirror image:

