

CSCC 355 PROJECT 5
IMAGE HANDLING / CARSENTRATION PROJECT

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1. PROJECT REQUIREMENTS

The goal of this project is to use WPF image controls to write a memory/concentration game. The game uses a collection of 14 “regular” car images; as well as two other images.

One of the additional images is the “hidden” car image,

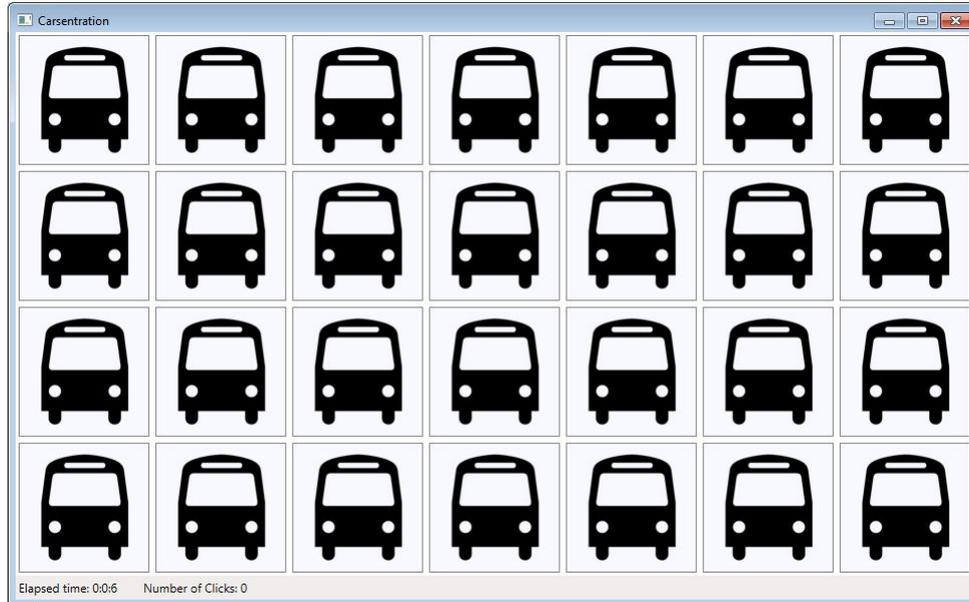


and the second additional image is the “cleared” car image



When a user starts the game, the game creates a randomized list of 28 car images, where each of the 14 car images appears twice in the list. The game assigns to each of the 20 images a (random) row and column position in a 4×7 grid.

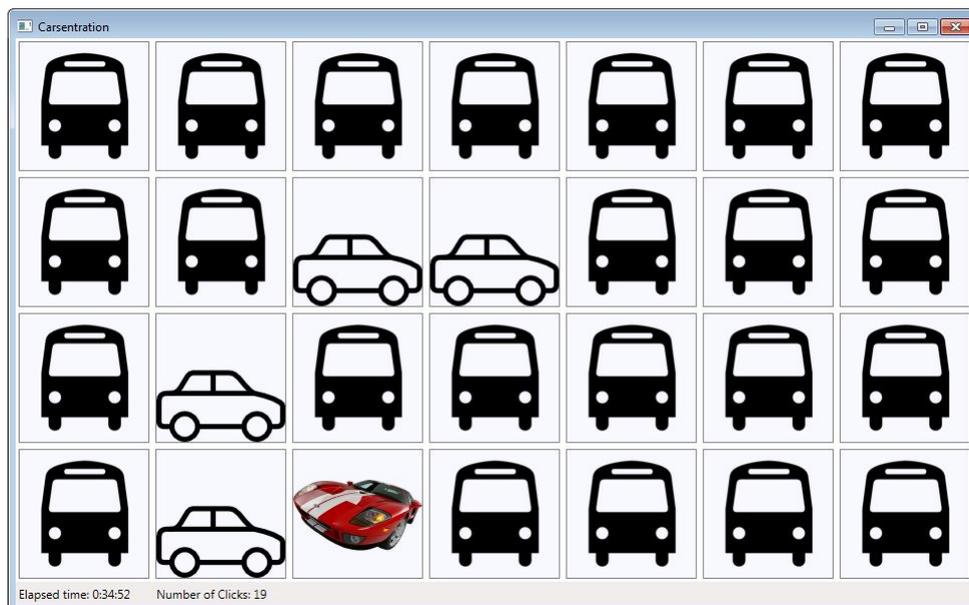
The hidden car image is used to conceal a car image in its assigned grid cell. Thus the opening screen of the game displays the hidden car image in all cells:



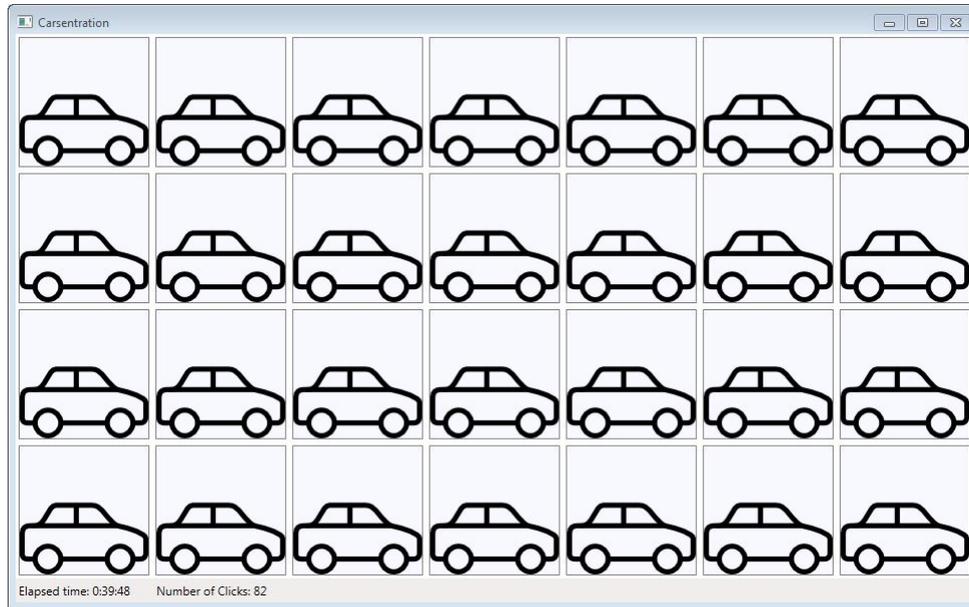
We agree that in image will be *hidden*, or *showing*, or *cleared*, depending on whether its assigned cell is showing the hidden image, the image itself, or the cleared image. Clicking on a hidden image shows the image, but clicking on any other type of image (showing or cleared) has no effect. If there are no images showing, clicking on a hidden image exposes it (causes it to show). If there is one image already showing, clicking on a hidden image exposes it and sets a timer for two seconds. *During this two second interval, clicking on any image has no effect.*

Upon expiration of the two second interval, the two exposed images are cleared if they are both showing the same image (that is, if they are duplicates of each other). If, however, they are showing different images, then they both become hidden. The game continues in this manner until all images have been cleared.

Here is a screen shot of a game in progress.



Finally, here is a screen shot of the completed game.



When all the cars have been cleared, the program should pop up a message box congratulating the user.

2. ADDITIONAL REQUIREMENTS

There must be a status bar at the bottom of the program's main window that shows

- (1) The number of hours, minutes, and seconds elapsed since the beginning of the game,
- (2) the number of clicks performed by the player.

The user interface of the game must have borders around the images, as shown in the example screen shots.

3. DUE DATE

This project is due Friday of Week 8.