

CS1580 - LAB11: Molotov Cocktail Toss

Objective:

- Pointers
- New and Delete

Scenario:

After the horrifying house of mirrors explosion last week, several carnies have decided that they have had enough of Sir Rigs-A-Lot carnival. You have decided to join this protest, and have been selected as the designated molotov cocktail thrower to destroy each individual carnival game.

Requirements:

You have been provided a **Game** class to represent the carnival games, as well as an array of each of their names.

- Using the `new[]` operator, create an array of **Game** objects.
- Iterate through the array, setting the name of each **Game** object to a carnival game from the provided array.
- If you changed what your **Game** pointer is pointing to, set your **Game** pointer to point to the first element of the array you created (hint: you can use `+=` and `-=` on pointers!)

After you have made the array, output all elements of the array.

Now that you have an array of carnival games, you must now destroy them. (And by that, I mean change their name slightly.) Iterate through the array again, changing the names of the carnival games to indicate that they have been destroyed. Output the new names of the carnival games once again.

Finally, delete (or delete[]) all the carnival game objects in your array.

Submission / compilation:

As we are still working with multiple files, compile your code with `g++ *.cpp -o [executable file name]`. (Leave out the square brackets.)

As usual, submit your lab assignments through git.

- Navigate to your repository, and clone with https
- In putty/linux, *git clone (the link you just copied.)*
- **cd** into the repository you just cloned
- Write the code
- *git add .*
- *git commit -m "git commit -m"*
- *git push*

Example:

Carnival games to be destroyed:

Guac-A-Mole
Bling Toss
Irish Roulette
Fortune Tent
Duck Shot
Archery Den
Skee Ball
Bingo?
House Of Mirrors

---Commencing Protest---

Carnival games now:

The unfortunate pile of Guac-A-Mole
The burnt ashes of Bling Toss
The distant memory of Irish Roulette
The painful aftermath of Fortune Tent
The long forgotten husk of Duck Shot
The sleeping remnants of Archery Den
The once loved relic of Skee Ball
The pitiful debris of Bingo?
The charred remains of House of Mirrors

//Note: These can all say the same thing, unless you're doing the bonus.

Some notes:

- Information on new[] and delete[] can be found here:
<https://www.cplusplus.com/reference/new/operator%20new/>

BONUS! (+5):

You may have noticed that the sample output has a bunch of different ways to indicate that a building has been destroyed. I am giving you an array of first parts of the sentence, and second parts of the sentence. Using a seed of 419, output randomly generated sentences that look like "The [random adjective] [random noun] of [carnival game]" for the second part of this assignment.