

COMP 1010- Summer 2015 (A01)

Jim (James) Young

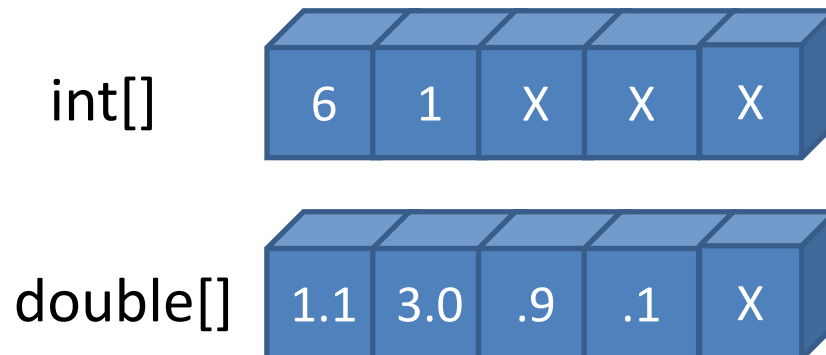
young@cs.umanitoba.ca

jimyoung.ca

partially filled arrays:

note: a **partially filled array** is an array that has data in some bins but not in others.

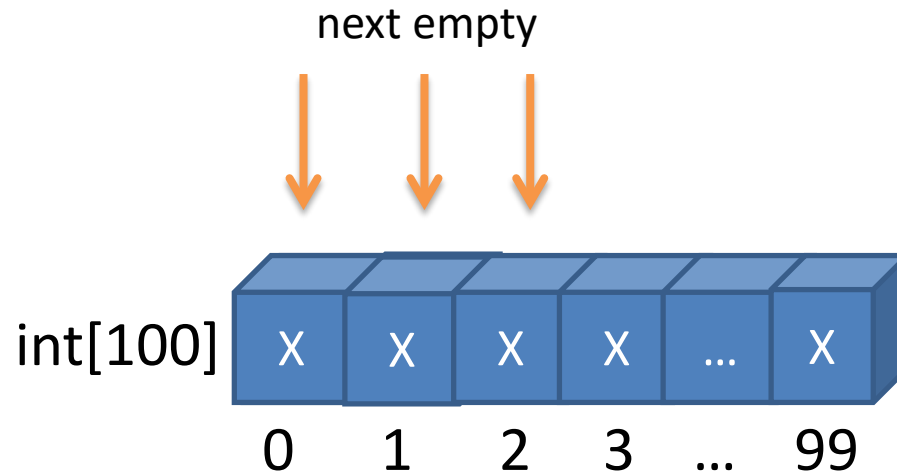
the challenge becomes identifying which bins have data, and which do not.



simple technique for filling up an array

go left to right,

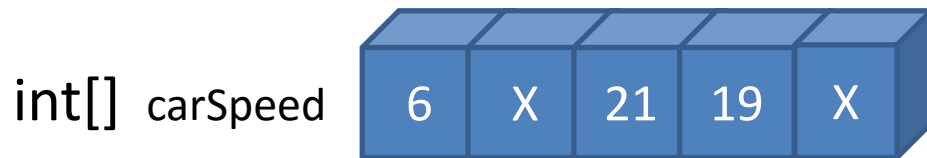
keep a pointer to the next empty spot



use pointer each time to decide where to put the next element

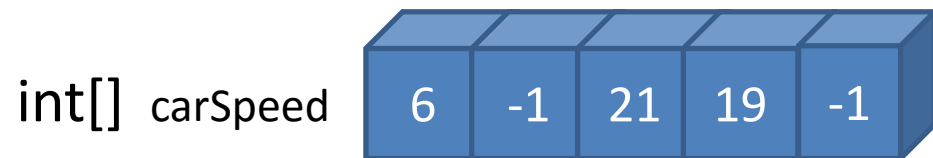
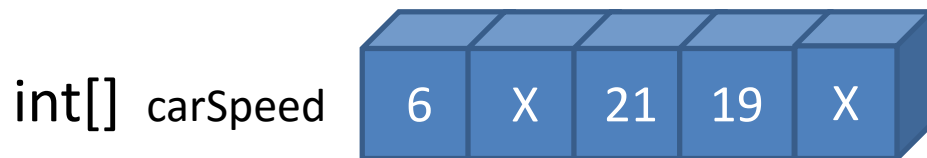
partially filled arrays: problem

What if you want some bins in the middle to be empty.



partially filled arrays: method #2

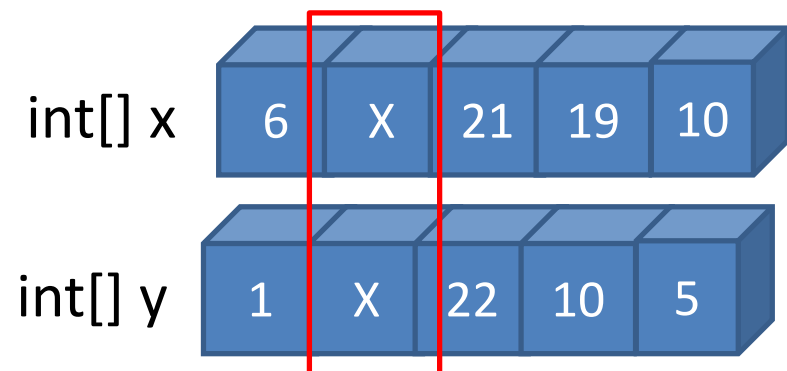
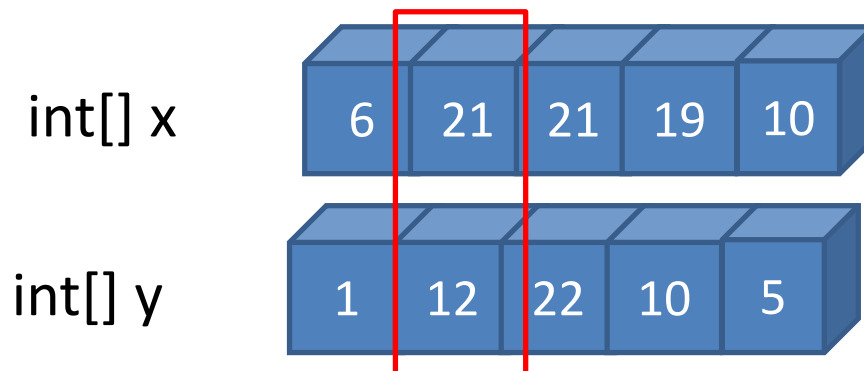
you can mark an empty bin by putting an impossible value in it.



Update our example to use new technique

Change from drawing path to ellipses

Introduce the capability to delete ellipses under the mouse



Update our example to use new technique

Kill the nextEmpty variable and create an EMPTY constant

Make helper function: clear the array

Update drawPoints with new partially filled method

Update keypress erase

How to add new data to the array?

Find the first empty bin

Put the data there

Make a function to find the first empty bin

What to return if there is no empty?

Update the draw block