“Advanced” Arrays

CPSC 1181 – O.O.

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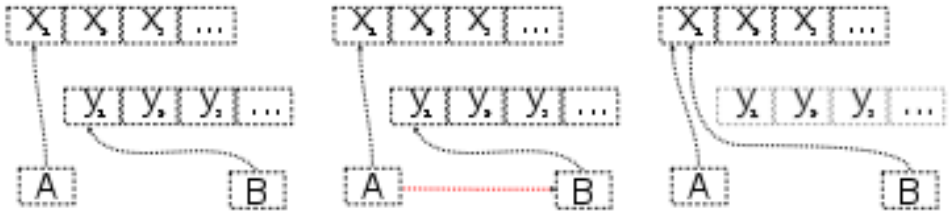
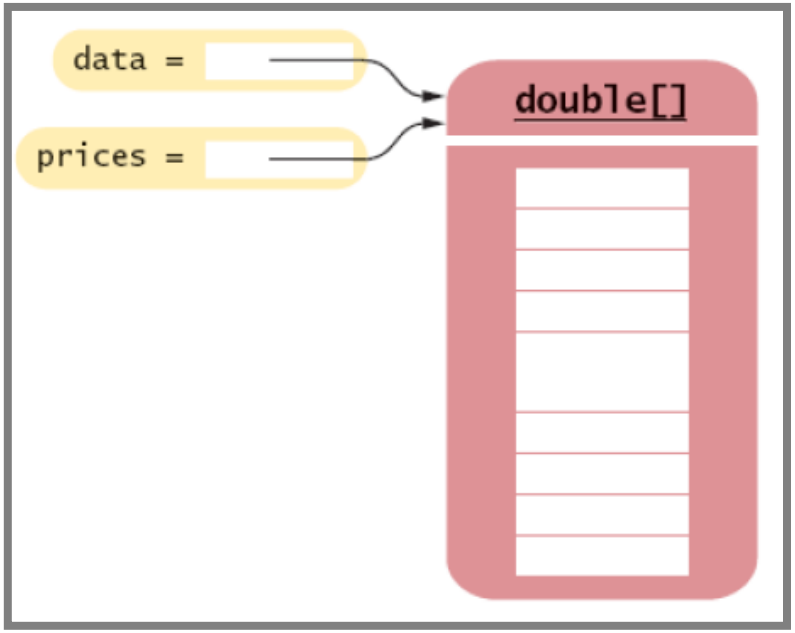
Langara.
THE COLLEGE OF HIGHER LEARNING.

Copying References

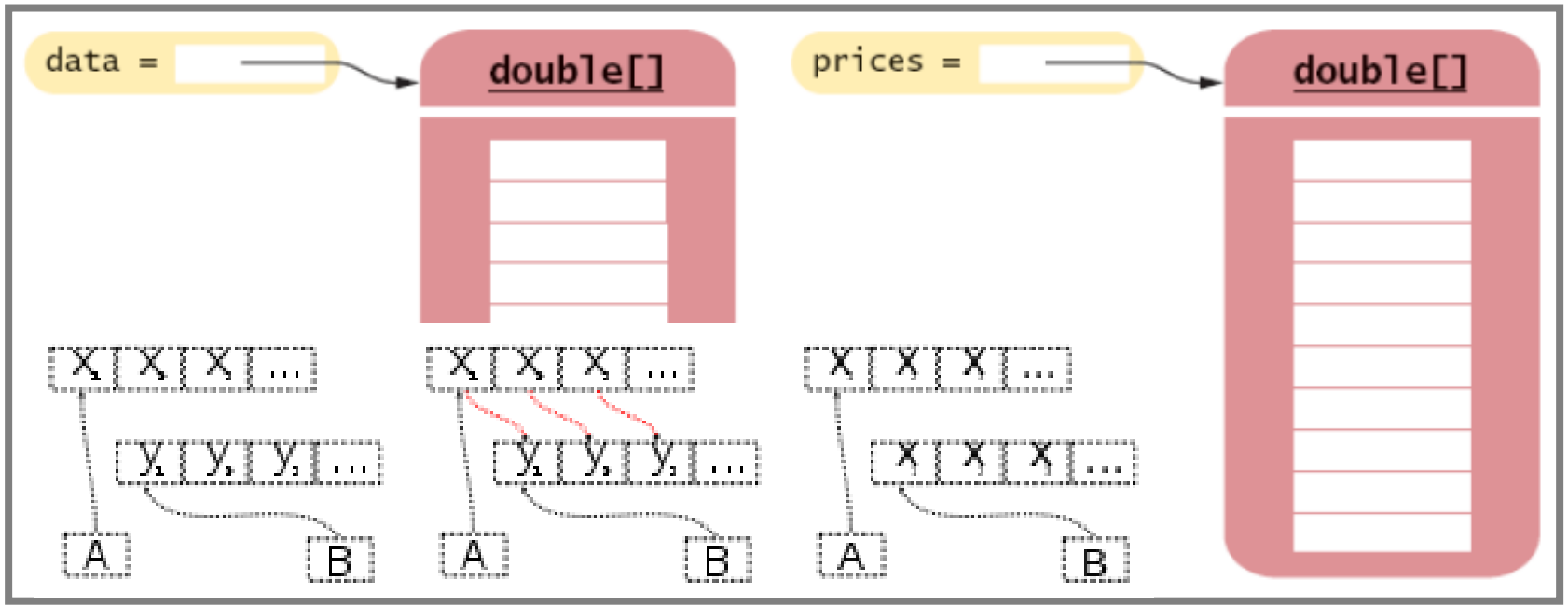
```
4    double[] data = new double[10];
5    // fill array...
6    double[] prices = data;
7    // shallow copy
```





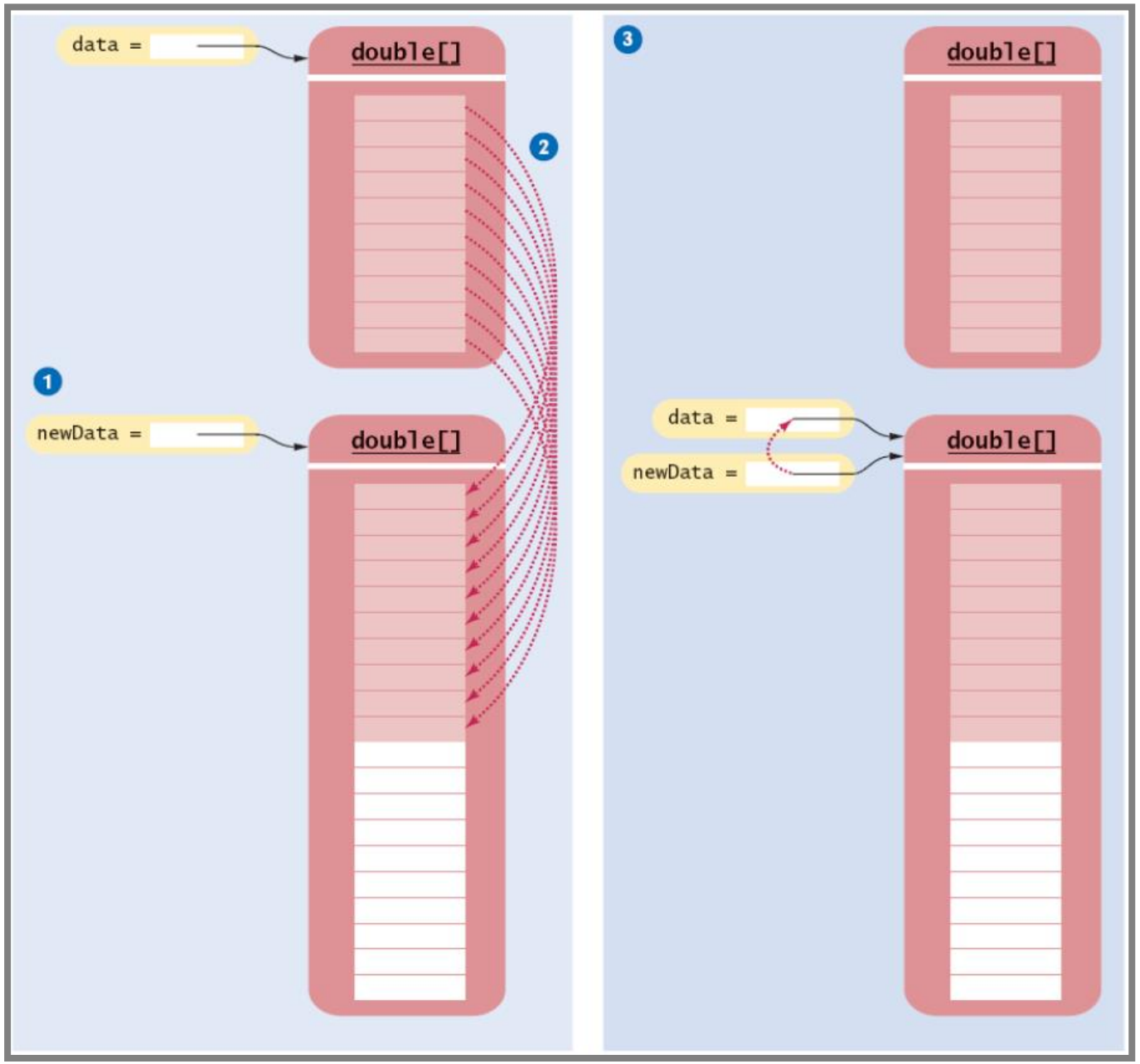
Cloning

```
4       double[] dest = (double[]) src.clone();
5       // or
6       double[] dest = Arrays.copyOf(src, src.length)
7       // or
8       double[] dest;
9       System.arraycopy(src, 0, dest, 0, dest.length);
```



Growing an Array

1. Create a new, larger array.
   - double[] newD = new double[2 * data.length];
2. Copy the contents
   - System.arraycopy(data, 0, newD, 0, data.length);
3. Store the reference to the new array
   - data = newD;

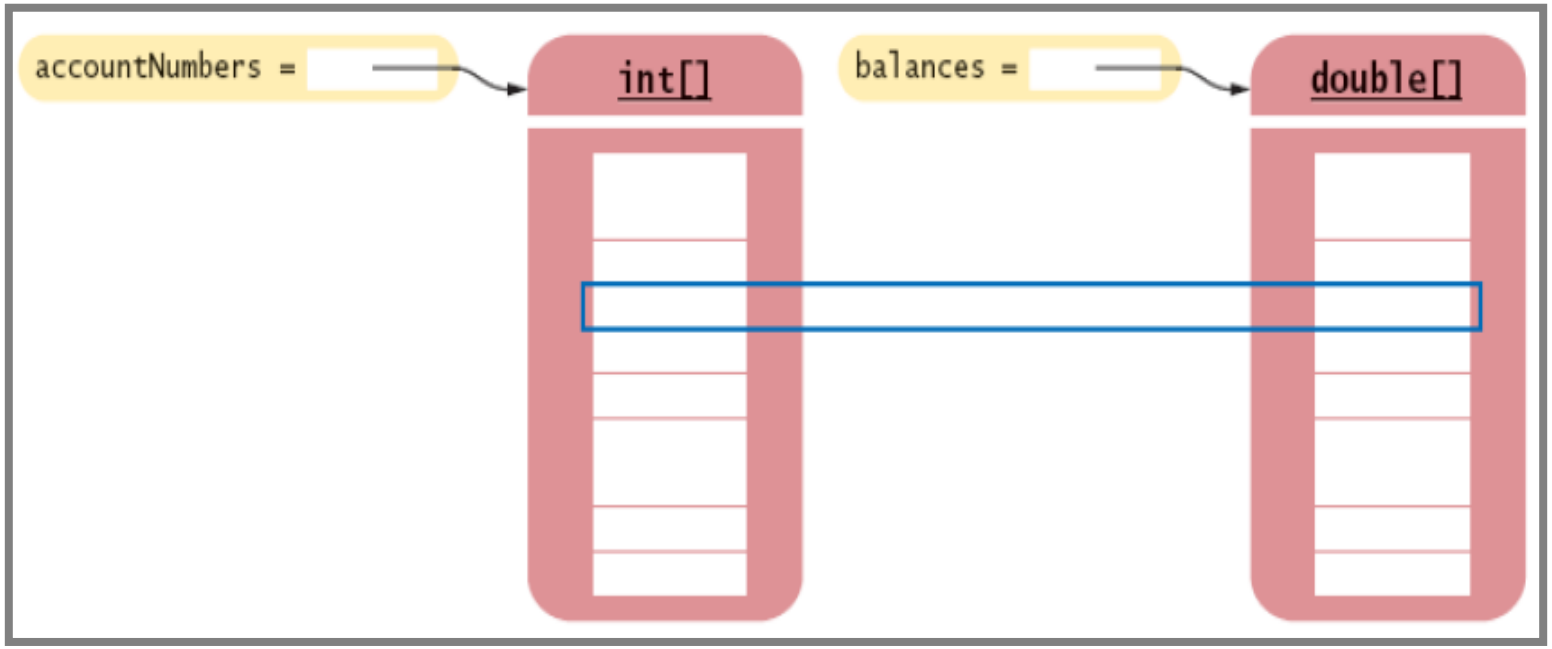

data =
double[]
2
1
newData =
double[]
3
double[]
data =
newData =
double[]

Parallel Data Structures

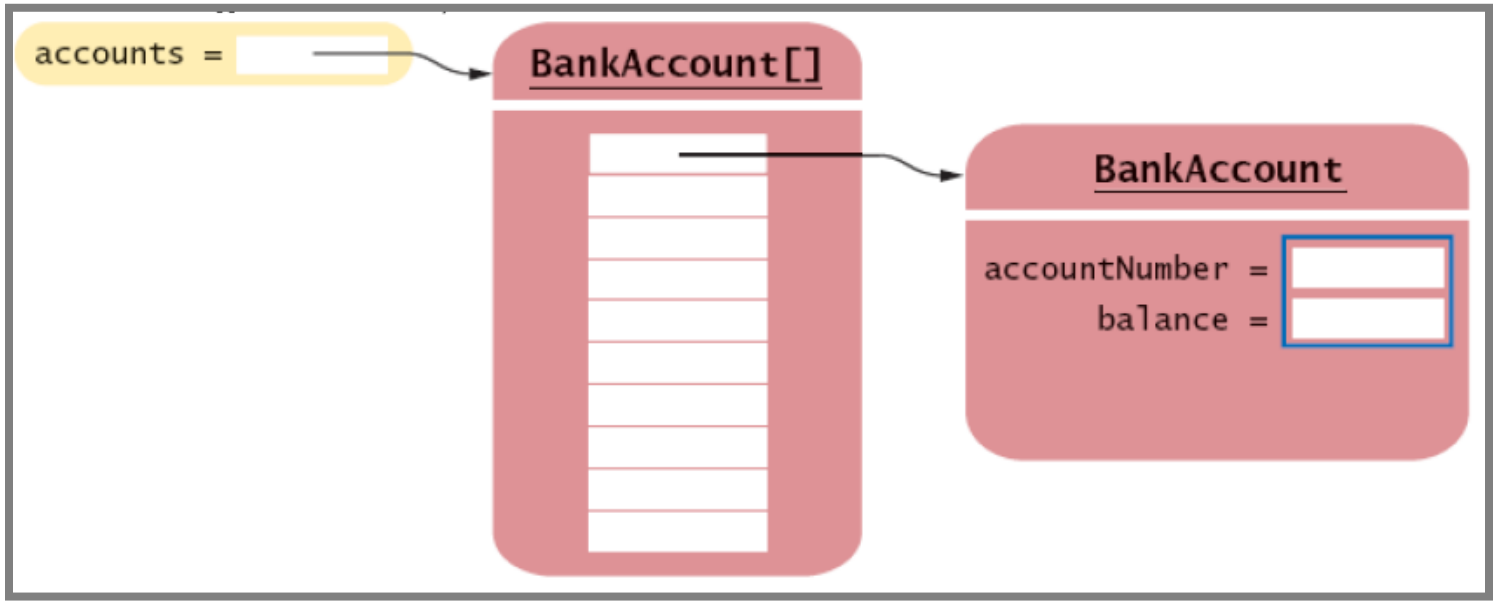
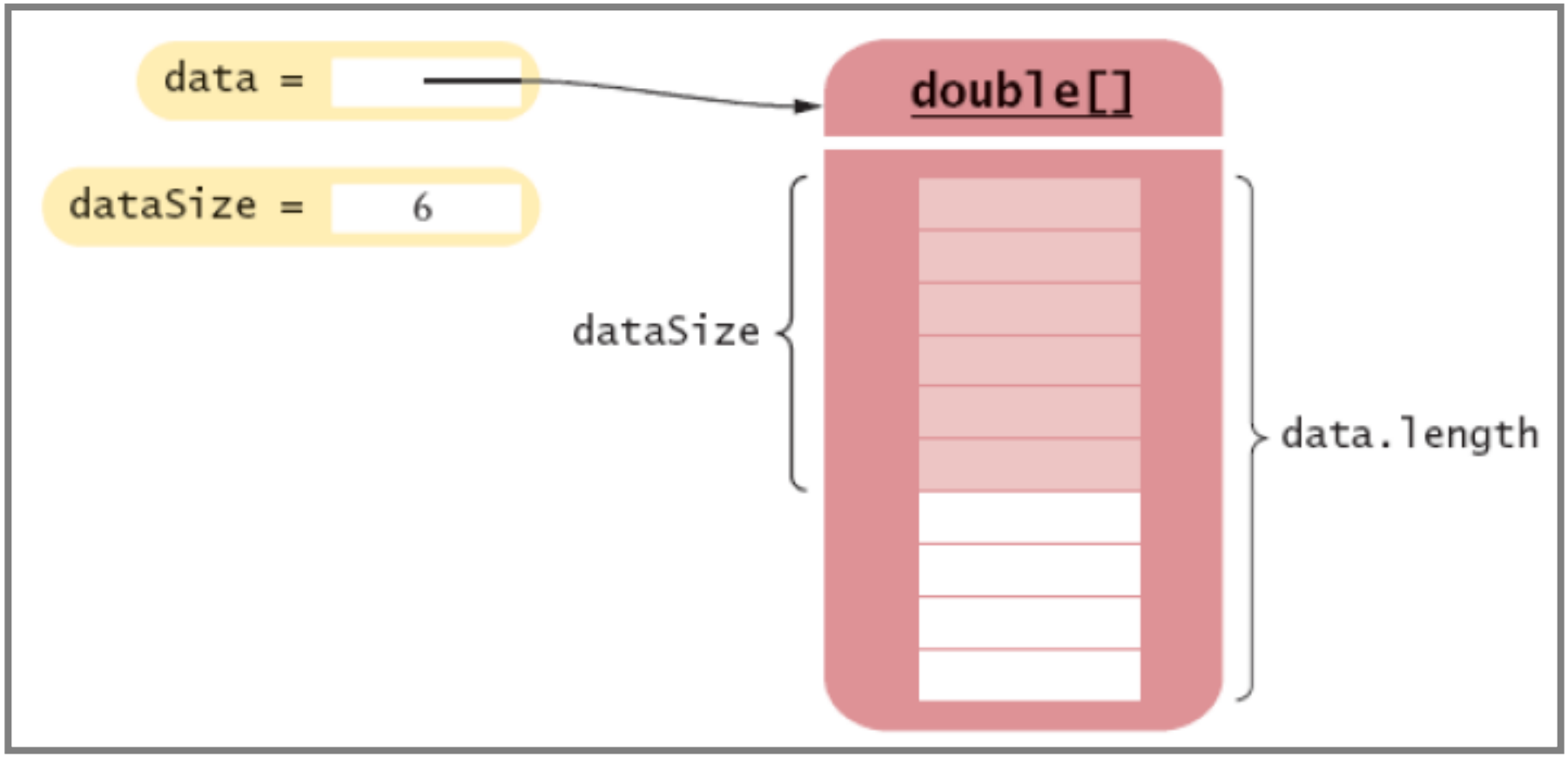
- Don’t ever do this!

  int[] accountNumbers = new int[NUM_ACCOUNTS]

  double[] balances = new double[NUM_ACCOUNTS]



Make an Array of Objects



Partially Filled Arrays