

A decorative graphic on the left side of the slide, consisting of a network of white lines and small circles on a dark blue background, resembling a circuit board or a neural network.

PARALLEL ARRAYS




zyBook 6.5

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PARALLEL ARRAYS

Parallel arrays are arrays with the **same size** that are used to store related lists of items.



EXAMPLE – DELIVERY TIMES

- Array for zipcodes, **zipcodes**
- Array for delivery times for a given zipcodes, **deliveryTimes**
- If zipcodeA is listed in index 1 of **zipcodes**. Then the delivery time for zipcodeA would be listed in index 1 of **deliveryTimes**

```
1 import java.util.*;
2
3 // Author: Suzanne Balik
4 public class DeliveryTime {
5     public static final int[] zipcodes = { 27603, 27605, 27606, 27607, 27608, 27695 };
6     public static final int[] deliveryTimes = { 20, 15, 20, 20, 15, 10 };
7     public static void main(String[] args) {
8         Scanner scnr = new Scanner(System.in);
9         System.out.print("Zipcode: ");
10        if (scnr.hasNextInt()) {
11            int zipcode = scnr.nextInt();
12            boolean found = false;
13            for (int i = 0; i < zipcodes.length && !found; i++) {
14                if (zipcode == zipcodes[i]) {
15                    found = true;
16                    System.out.println("Delivery time: " + deliveryTimes[i] + " min");
17                }
18            }
19            if (!found) {
20                System.out.println("Sorry, no delivery to that zipcode");
21            }
22        } else {
23            scnr.next();
24            System.out.println("Invalid zipcode");
25        }
26    }
27 }
```

```
$ java -cp bin DeliveryTime
```

```
Zipcode: 27695
```

```
Delivery time: 10 min
```

```
$ java -cp bin DeliveryTime
```

```
Zipcode: 27613
```

```
Sorry, no delivery to that zipcode
```

```
$ java -cp bin DeliveryTime
```

```
Zipcode: nc
```

```
Invalid zipcode
```