

CSC116 – DISCUSSION 5

GINA BAI

LOGISTICS

- Office hours rescheduled next week – Memorial Day
 - Was 12 – 2pm, Monday
 - Now
 - 12 – 1pm, Tuesday
 - 12 – 1pm, Wednesday

PROJECT 1

- Project 1 → **Weather Calculator**
 - variables, constants, expressions
 - print statements via `System.out`
 - Scanner objects
 - Math class
 - equality, relational, and logical operators
 - conditional structures
 - debugging techniques, and
 - system testing (black-box testing)

TOPICS

- Switch statements
 - switch
 - case
 - **break**
 - default
- Conditional expressions
 - `result = someCondition ? value1 : value2;`
- System testing for conditionals
- Strings
 - Index starting from 0
- Character operations
- Scanner with strings

STRINGS

```
➤ JAVA
1  /**
2   * Example that uses String objects
3   * and String methods
4   *
5   * @author Jessica Young Schmidt
6   */
7  public class StringExample {
8      /**
9       * Starts program.
10     *
11     * @param args command line arguments
12     */
13     public static void main(String[] args) {
14         String question = "How are you?";
15         String response = "I am fine. Thanks.";
16
17         System.out.println(question.length()); // 12
18         System.out.println(response.length()); // 18
19         System.out.println(question.length()
20             + response.length()); // 30
21
22         String sub1 = question.substring(3, 7);
23         System.out.println(sub1.toUpperCase()); // _ARE
24
25         String sub2 = response.substring(7);
26         System.out.println(sub2.toLowerCase()); // ne. thanks.
27
28     }
29 }
```

STRINGS

► JAVA

```
1 import java.util.Scanner;
2
3 public class ScannerExample {
4     public static void main(String[] args) {
5         Scanner console = new Scanner(System.in);
6
7         System.out.print("Enter course: ");
8         String course = console.next();
9         System.out.println("You are currently taking " + course);
10
11        System.out.print("Enter course: ");
12        course = console.next();
13        System.out.println("You are currently taking " + course);
14
15        System.out.print("Enter course: ");
16        course = console.next();
17        System.out.println("You are currently taking " + course);
18    }
19 }
```

► TERMINAL

```
$ java -cp bin ScannerExample
Enter course: CSC116
You are currently taking CSC116
Enter course: E101
You are currently taking E101
Enter course: E115
You are currently taking E115
```

One token a time

STRINGS

► JAVA

```
1 import java.util.Scanner;
2
3 public class ScannerExample {
4     public static void main(String[] args) {
5         Scanner console = new Scanner(System.in);
6
7         System.out.print("Enter course: ");
8         String course = console.next();
9         System.out.println("You are currently taking " + course);
10
11        System.out.print("Enter course: ");
12        course = console.next();
13        System.out.println("You are currently taking " + course);
14
15        System.out.print("Enter course: ");
16        course = console.next();
17        System.out.println("You are currently taking " + course);
18    }
19 }
```

► TERMINAL

```
$ java -cp bin ScannerExample
Enter course: CSC116 E101 E115
You are currently taking CSC116
Enter course: You are currently taking E101
Enter course: You are currently taking E115
```

All tokens in a single line

LAB 5

➤ Flavors.java

- Prompts the user to enter a flavor represented by the String
 - "o" or "O" for Orange,
 - "c" or "C" for Cherry, and
 - "l" or "L" for Lime.
- Use a **switch statement** to output
 - "Orange", "Cherry", "Lime", or "Invalid flavor" based on the letter.
- Output "Invalid flavor" and exit the program if the String entered by the user does not have exactly one character.

LAB 5

➤ MovieTheater.java

- Prompts the user for
 - the number of adult and child tickets to purchase
- Prompts whether the movie showing is a matinee. (y / n)
 - anything that starts with “y” or “Y”, it is a matinee.
- Adult tickets cost \$12 and child tickets cost \$10. There is a \$3 discount for each matinee ticket.
- Output "Invalid value" and exit the program if either number of tickets is less than 0.
- Output the price of the tickets formatted as \$xx.00

