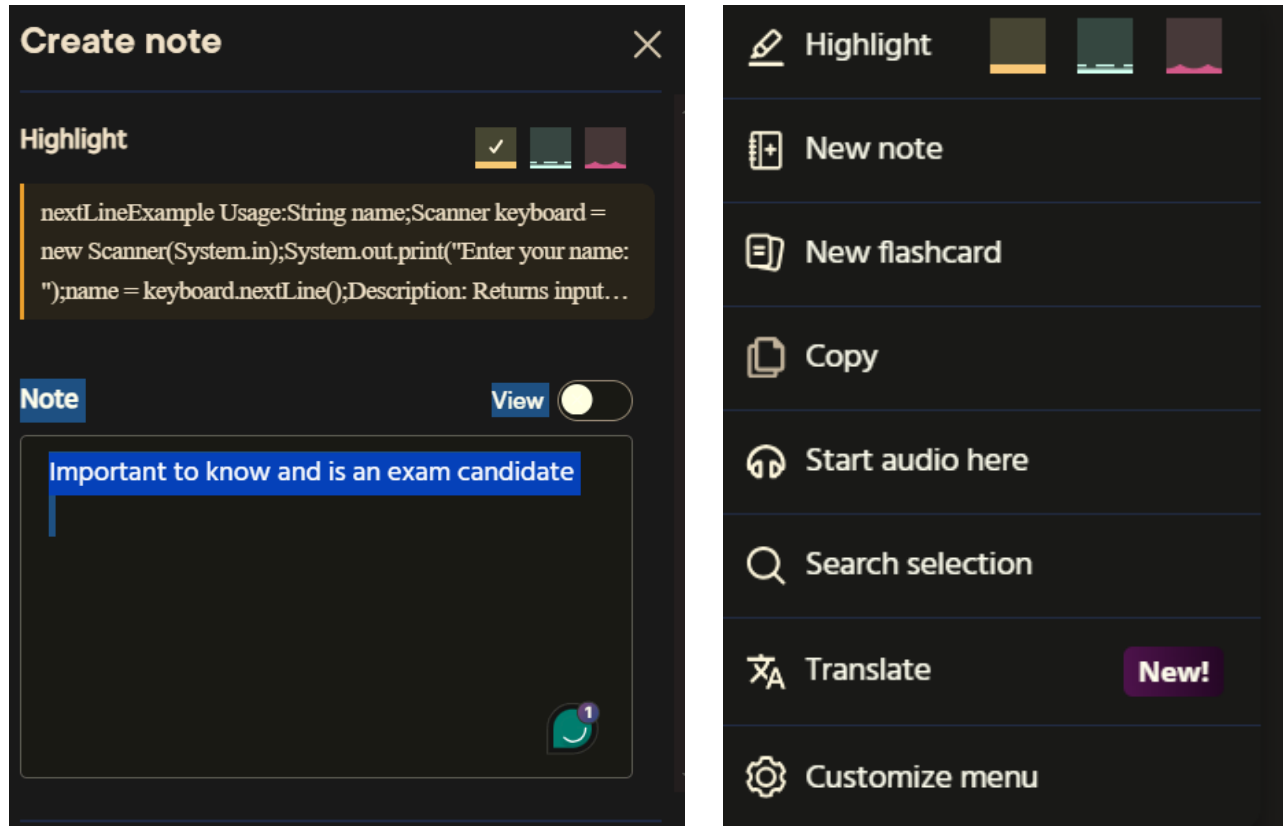


We went over a question of where we got the Scanner Class and it was on Page 109



Highlight text then click on new note to keep track of it on the book.

New Materials:

First Exam 9/26 Thursday

- Multiple Choice / TF / Fill in the blank on Sclatron and hand written code.
- With the additional class meetings we can include Ch03 Decision into the exam.
- You must provide Photo ID for your exam.
- No electronics, all closed book

Studying from the eBook

- Highlights
- sNotes
- Flashcards

- Checkpoints: MC, Matching
- Animated Solutions

System.out.printf method // use this to print out numbers with only 2 decimals

String.format method

Module 03

Reading Materials has 03_8e_Deision1.pdf up to pg 11

Here we show how to declare primitive data and Class data:

```
String sis = new String("Lil");
String dad = new String("Joe");
int sisAge = 12;
int dadAge = 45;
double sisHt = 4.08;
double dadHt = 6.5;
```

How do you use this data:

You can find the average age, find the average height

What about String data?

Using the String Method Examples

NOTE: Using the method .toUpperCase() makes the string upper case but

Does not change the value of the variable dad

```
dad.toUpperCase()
"JOE"    (String)
```

```
Dad          // dad is still lowercase because it was not
assigned
```

```
"Joe"    (String)  // the variable of dad becoming uppercase
```

```
dad = dad.toUpperCase(); // This is how you assign dad as uppercase
```

```
dad
```

```
"JOE"    (String)
```

```
dad = dad.toLowerCase(); // This is how you assign dad as uppercase
```

```
dad
```

```
"joe"    (String)
```

Sports team // I don't really know sports

```
String bl = new String("Boston Lakers");
```

```
bl
```

```
"Boston Lakers"    (String)
```

```
bl.length()
```

```
13    (int)
```

```
bl.substring (0,3)
```

```
"Bos"    (String)
```

```
bl.substring (4,8)
```

```
"on L"    (String)
```

```
bl.substring (8,8) // This is past the scope of String so it returns a  
blank
```

```
""    (String)
```

```
bl.indexOf("or")
```

```
-1    (int)          // There is no or next to each other so I assume it  
returned           //a value that shows it did not work
```

```
bl.indexOf("on")
```

```
4    (int)
```

The Random and Methods. The lib has to be imported.

```
Import java.util.Random;
Random rnd = new Random(); // Creates variable rnd (doesn't have to be
rnd)
rnd.nextInt()
-1808792012    (int)

rnd.nextInt(500)
11    (int)

rnd.nextInt(5)
4    (int)

rnd.nextInt(5)
1    (int)

rnd.nextInt(500)
185    (int)

rnd.nextDouble(500)
258.3160529798574    (double)

rnd.nextFloat()
0.62484133    (float)
```

The Draw Class and methods. The lib is through preferences.

The Scanner Class and methods. The lib has to be imported.

We went over Ch.03a_Yname file which had examples of If/else Statements

```
18 // Explain: This code is trying to get mom's and dad's age from
19 // the keyboard, but is hardcoded in so we have to change that
20
21 // The code wants to print who is older and each of their ages
22 // but prints blank because they are the same right now
23 public static void ifMomDad()
24 {
25     Scanner keyboard = new Scanner(System.in);
26     int momAge, dadAge;
27     System.out.print("Mom's age: ");
28     momAge = keyboard.nextInt();
29
30     System.out.print("Dad's age: ");
31     dadAge = keyboard.nextInt();
32
33     if( momAge > dadAge )
34     {
35         System.out.println("Mom is older");
36     }
37     if( dadAge > momAge )
38     {
39         System.out.println("Dad is older");
40     }
41     // What if they are same age?
```

Checks their age



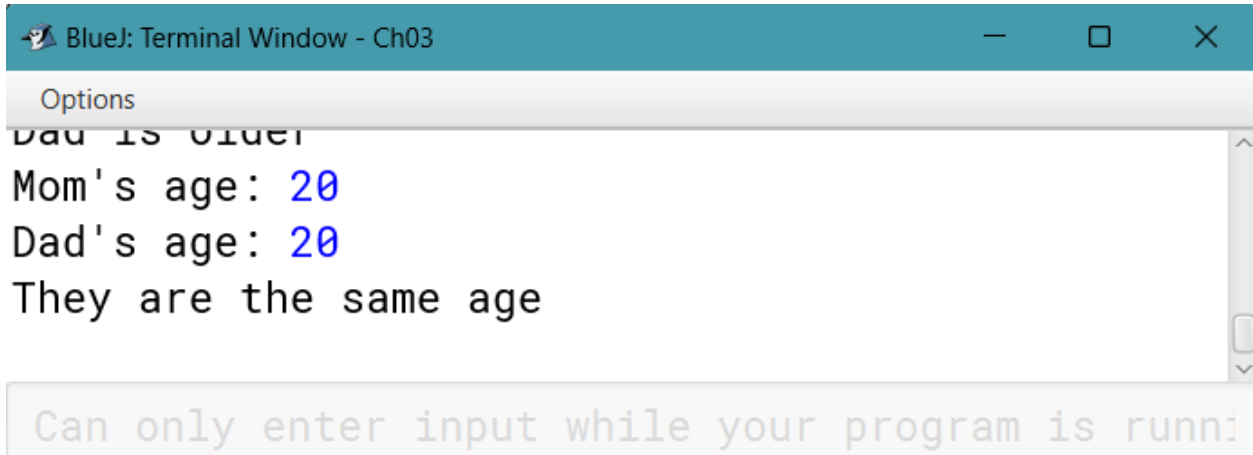
BlueJ: Terminal Window - Ch03

Options

Mom's age: 20
Dad's age: 21
Dad is older

Can only enter input while your program is running

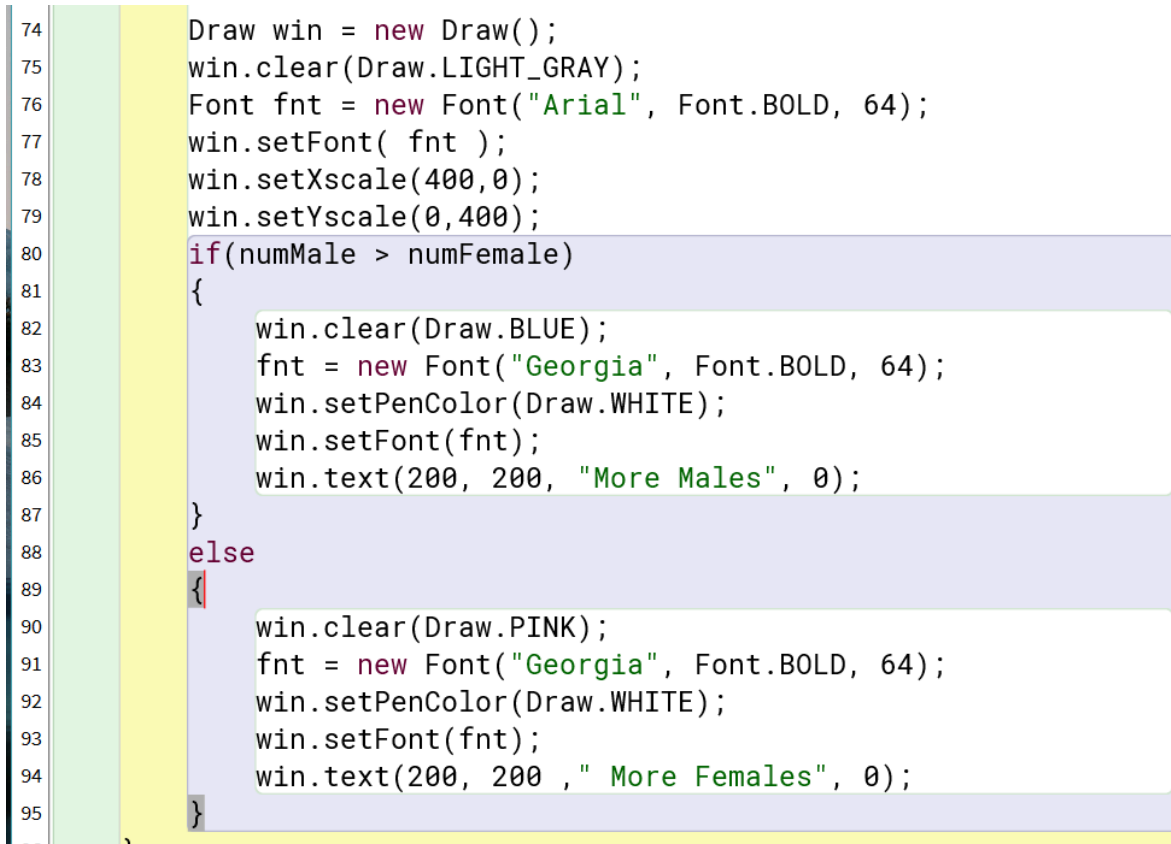
This is what happens when they are the same age



A screenshot of a BlueJ Terminal Window titled "BlueJ: Terminal Window - Ch03". The window has a teal header bar with standard window controls. Below the header is a tab labeled "Options". The main text area shows the following output: "Dad is older", "Mom's age: 20", "Dad's age: 20", and "They are the same age". The numbers "20" are highlighted in blue. At the bottom of the window, a light gray banner contains the text "Can only enter input while your program is running".

```
BlueJ: Terminal Window - Ch03
Options
Dad is older
Mom's age: 20
Dad's age: 20
They are the same age
Can only enter input while your program is running
```

This is from Example 03. I set a scale and filled in a screen



A screenshot of a code editor with a yellow background. The code is in Java and shows the initialization and conditional drawing logic for a window. Line numbers 74 through 95 are visible on the left. The code uses a conditional statement to draw text based on the number of males and females. Two code blocks are highlighted with light blue backgrounds: one for the 'if' branch (lines 80-86) and one for the 'else' branch (lines 90-94). The 'if' branch sets the window to blue and draws 'More Males'. The 'else' branch sets the window to pink and draws 'More Females'. Both branches use the 'Georgia' font in bold size 64.

```
74 Draw win = new Draw();
75 win.clear(Draw.LIGHT_GRAY);
76 Font fnt = new Font("Arial", Font.BOLD, 64);
77 win.setFont( fnt );
78 win.setXscale(400,0);
79 win.setYscale(0,400);
80 if(numMale > numFemale)
81 {
82     win.clear(Draw.BLUE);
83     fnt = new Font("Georgia", Font.BOLD, 64);
84     win.setPenColor(Draw.WHITE);
85     win.setFont(fnt);
86     win.text(200, 200, "More Males", 0);
87 }
88 else
89 {
90     win.clear(Draw.PINK);
91     fnt = new Font("Georgia", Font.BOLD, 64);
92     win.setPenColor(Draw.WHITE);
93     win.setFont(fnt);
94     win.text(200, 200, " More Females", 0);
95 }
```



This is the graphics screen
results of each if else statement