

## Amanda Gettings – BE Dev – Week 2 Labs

```
Application.java x
196
197 // Week2Lab
198
199 System.out.println("Lab - Booleans & Conditionals:");
200
201
202 // Create a variable named age and assign it a value of 14
203 int age = 14;
204
205 // Print the boolean expression age >= 16, note results
206 // then change value to 18 & run again
207 System.out.println(age >= 16);
208 age = 17;
209 System.out.println(age >= 16);
210
211
212 // using conditional, if age greater than or equal to 16, print "you can drive"
213 // and "you cannot drive" otherwise
214 // change value of age and rerun to see result
215 boolean hasLicense = false;
216
217 if (age >= 16 && hasLicense) {
218     System.out.println("You can drive!");
219 } else {
220     System.out.println("You cannot drive.");
221 }
222
223 // add variable hasLicense line 207
224 // change boolean in conditional to additionally include need for hasLicense to be true
225 // try changing the values of age and hasLicense and note different results
226
227 // two variables costOfMilk and thirstLevel
228 // condition prints "milk please" if costOfMilk is less than 2.50
229 // or if thirstLevel is greater than 6 and prints "no thanks" otherwise
230 // change value and note different results
231 double costOfMilk = 3.15;
232 int thirstLevel = 7;
233
234 if (costOfMilk < 2.5 || thirstLevel > 6) {
235     System.out.println("Milk Please");
236 } else {
237     System.out.println("No thanks");
238 }
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Problems Javadoc Declaration Console x Terminal

<terminated> Application [Java Application] C:\Users\Robin\p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86\_64\_17.0.6.v20230204-1729

Week 2  
Lab - Booleans & Conditionals:  
false  
true  
You cannot drive.  
Milk Please  
Jackpot!  
Jackpot!  
0.15  
544.425  
PLATINUM  
login successful

7:15 PM  
3/9/2023

```
Application.java X
234     if (costOfMilk < 2.5 || thirstLevel > 6) {
235         System.out.println("Milk Please");
236     } else {
237         System.out.println("No Thanks");
238     }
239
240     // create numberOfCookies and numberOfChildren
241     // evenly distribute all cookies to children w/ remainder going to adult
242     // conditional to print based on number of cookies
243     int numberOfCookies = 20;
244     int numberOfChildren = 12;
245
246     int remainingCookies = numberOfCookies % numberOfChildren;
247
248     if (remainingCookies == 0) {
249         System.out.println("Sad Face");
250     } else if (remainingCookies < 2) {
251         System.out.println("Yes!");
252     } else if (remainingCookies < 5) {
253         System.out.println("Whooohoooo!");
254     } else {
255         System.out.println("Jackpot!");
256     }
257
258
259
260     if (numberOfCookies % numberOfChildren >= 5) {
261         System.out.println("Jackpot!");
262     } else if (numberOfCookies % numberOfChildren >= 2) {
263         System.out.println("Whooohoooo!");
264     } else if (numberOfCookies % numberOfChildren > 0) {
265         System.out.println("Yes!");
266     } else {
267         System.out.println("Sad Face");
268     }
269
270     // create loyaltyMemberStatus "Silver"
271     // create loyaltyMemberDiscount "0.00"
272     // using a switch, set the value of loyaltyMemberDiscount based on the following
273     // loyaltyMemberStatus scale
274     // SILVER is 0.10, GOLD is 0.15, and PLATINUM is 0.25

```

Problems Javadoc Declaration Console X Terminal

<terminated> Application [Java Application] C:\Users\Robin\p2\pool\plugins\org.eclipse.justi.openjdk.hotspot.jre.full.win32.x86\_64\_17.0.6.v20230204-1729

Week 2  
Lab - Booleans & Conditionals:  
false  
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You cannot drive.  
Milk Please  
Jackpot!  
Jackpot!  
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544.425  
PLATINUM  
login successful

```
Application.java x
269
270 // create loyaltyMemberStatus "Silver"
271 // create loyaltyMemberDiscount "0.00"
272 // using a switch, set the value of loyaltyMemberDiscount based on the following
273 // loyaltyMemberStatus scale
274 // SILVER is 0.10, GOLD is 0.15, and PLATINUM is 0.25
275 String loyaltyMemberStatus = "GOLD";
276 double loyaltyMemberDiscount = 0.0;
277
278 switch (loyaltyMemberStatus) {
279     case "SILVER":
280         loyaltyMemberDiscount = .1;
281         break;
282     case "GOLD":
283         loyaltyMemberDiscount = .15;
284         break;
285     case "PLATINUM":
286         loyaltyMemberDiscount = .25;
287         break;
288 }
289
290 System.out.println(loyaltyMemberDiscount);
291
292 // create billTotal and assign a value
293 // create adjustedTotal and assign it billTotal minus loyaltyMemberDiscount percent of billTotal
294 // if adjustedBillTotal is greater than $500 upgrade loyaltyMemberStatus from SILVER to GOLD or
295 // GOLD to PLATINUM
296 double billTotal = 640.50;
297 double adjustedTotal = billTotal - billTotal * loyaltyMemberDiscount;
298 System.out.println(adjustedTotal);
299
300 if (adjustedTotal > 500) {
301     if (loyaltyMemberStatus == "SILVER") {
302         loyaltyMemberStatus = "GOLD";
303     } else if (loyaltyMemberStatus == "GOLD") {
304         loyaltyMemberStatus = "PLATINUM";
305     }
306 }
307
308 System.out.println(loyaltyMemberStatus);
309
```

Problems Javadoc Declaration Console x Terminal

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Week 2

Lab - Booleans & Conditionals:

false

true

You cannot drive.

Milk Please

Jackpot!

Jackpot!

0.15

544.425

PLATINUM

login successful

```
Application.java x
308 System.out.println(loyaltyMemberStatus);
309
310 //create two variables, username and password
311 //create a conditional that prints "login successful" if the username is "Tommy123" and pw is "12345"
312 //otherwise, print "access denied"
313
314 String username = "Tommy123";
315 String password = "12345";
316
317 if (username.equals("Tommy123") && password.equals("12345")) {
318     System.out.println("login successful");
319 } else {
320     System.out.println("access denied");
321 }
322
323
324 System.out.println("Lab - Loops:");
325 //write a for loop that prints each number 0 to 9
326 for(int i = 0; i < 10; i++) {
327     System.out.println(i);
328 }
329
330 //write a for loop that prints each number from 10 to 0 backwards
331 for(int i = 10; i >= 0; i--) {
332     System.out.println(i);
333 }
334
335 //write a for loop that prints every other number from 0 to 100
336 for (int i = 0; i <= 100; i++) {
337     if (i % 2 == 0) {
338         System.out.println(i);
339     }
340 }
341
342 //write a for loop that iterates from 0 to 100 and prints "EVEN" if even and "ODD" if odd
343 for (int i = 0; i <= 100; i++) {
344     if (i % 2 == 0) {
345         System.out.println(i + " EVEN");
346     } else {
347         System.out.println(i + " ODD");
348     }
349 }
```

Problems Javadoc Declaration Console x Terminal

<terminated> Application [Java Application] C:\Users\Robin\p2\pool\plugins\org.eclipse.justi.openjdk.hotspot.jre.full.win32.x86\_64\_17.0.6.v20230204-1729

login successful

Lab - Loops:

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Application.java x
334
335 //write a for loop that prints every other number from 0 to 100
336 for (int i = 0; i <= 100; i++) {
337     if (i % 2 == 0) {
338         System.out.println(i);
339     }
340 }
341
342 //write a for loop that iterates from 0 to 100 and prints "EVEN" if even and "ODD" if odd
343 for (int i = 0; i <= 100; i++) {
344     if (i % 2 == 0) {
345         System.out.println(i + " EVEN");
346     } else {
347         System.out.println(i + " ODD");
348     }
349 }
350
351
352 //write a while loop that starts at 100 and iterates backward by 1 until it reaches 0
353 // within the loop, divide each number by 3 and print remainder to console
354 int i = 100;
355 while (i > 0) {
356     System.out.println(i + " " + i % 3);
357     i--;
358 }
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368
369
370 }
371 }
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Problems Javadoc Declaration Console x Terminal

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98
100
0 EVEN
1 ODD
2 EVEN
3 ODD
4 EVEN
5 ODD
6 EVEN
7 ODD
```

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*Application.java ×
335 //write a for loop that prints every other number from 0 to 100
336 for (int i = 0; i <= 100; i++) {
337     if (i % 2 == 0) {
338         System.out.println(i);
339     }
340 }
341
342 //write a for loop that iterates from 0 to 100 and prints "EVEN" if even and "ODD" if odd
343 for (int i = 0; i <= 100; i++) {
344     if (i % 2 == 0) {
345         System.out.println(i + " EVEN");
346     } else {
347         System.out.println(i + " ODD");
348     }
349 }
350
351 //write a while loop that starts at 100 and iterates backward by 1 until it reaches 0
352 // within the loop, divide each number by 3 and print remainder to console
353 int i = 100;
354 while (i > 0) {
355     System.out.println(i + " " + i % 3);
356     i--;
357 }
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359
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361
362 |
363 }
364 }
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Problems Javadoc Declaration Console × Terminal

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19 1
18 0
17 2
16 1
15 0
14 2
13 1
12 0
11 2
10 1
9 0
8 2
7 1
6 0
5 2
4 1
3 0
2 2
1 1
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