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//
// Copyright (c) 2023 Promineo Tech
// Author:  Promineo Tech Academic Team
// Subject:  Boolean & Conditionals Lab
// Java Week 02 Lab
//
package week02;

public class Week02BooleanConditionalsLoopsLab {

	public static void main(String[] args) {

		//
		// BOOLEANS and CONDITIONALS:
		//

		// 1. Variable Declaration:
		//		a. Create a variable named age and assign it a value of 14

		int age =18;

		// 2. Print a Boolean Expression:
		//		a. Print the boolean expression age >= 16 to the console and
note the results.
		//		a. Change the value of age to 18 and print again.
System.out.println(age >= 16);


		// 3. Can you drive?
		//		a. Using a conditional, print one of the following:
		//			i. "You can drive" if age is greater than or equal to
16
		//			ii. "You cannot drive" otherwise
		//
		//		a. Change the value of age and rerun to see the result
boolean hasLicense = false;
if (age >= 16 && hasLicense) {
		System.out.println("You can drive");

	} else { System.out.println("You cannot drive");

		// 4. Update Solution to Question 3 as follows:
		//		a. Add a new variable called hasLicense before the conditional.
		//		b. Change the boolean expression in the conditional to
additionally
		//			include the need for hasLicense to be true.
		//		c. Try changing the values of age and hasLicense and note the
different results.



		// 5. Milk?
		//		a. Create two new variables - costOfMilk and thirstLevel
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		//		b. Create a new conditional that prints "Milk Please" if costOfMilk
is less than 2.50
		//					or if thirstLevel is greater than 6 and prints "No
Thanks" otherwise.
		//		c. Change the values and note the different results.
double costOfMilk = 3.0;
int thirstLevel = 2;
if (costOfMilk <= 2.50 || thirstLevel > 6)
{
	System.out.println("Milk Please");

} else  {
	System.out.println("No Thanks");
}


		// 6. Cookie Distribution:
		//			Note:  You will evenly distribute all of the cookies to the
children
		//						and as the adult you get to keep the
remaining cookies for yourself.
		//
		//		a. Create two variables called numberOfCookies and
numberOfChildren.
		//		b. Initialize the two variables to integer values.
		//		b. Use a conditional to print the following based on the following
conditions:
		//				i. If there are 0 cookies remaining, print "Sad Face"
		//				ii. If there are less than 2 cookies, print "Yes!"
		//				iii. If there are less than 5 cookies, print
"Whoohoooo!"
		//				iv. If there are 5 or more cookies, print "Jackpot!"

		int numberOfCookies = 20;
		int numberOfChildren = 5;
	double cookiesRemain = (numberOfCookies % numberOfChildren);
	if (cookiesRemain <= 0) { System.out.println("Sad Face");
	} else if (cookiesRemain < 2) { System.out.println("Yes!");
	}
	else if (cookiesRemain < 5)

{ System.out.println("Whoohoooo!");
	}
	else if (cookiesRemain > 5) { System.out.println("Jackpot!");
	}
	}


		// 7.  Loyalty Member Program:
		//		a. Create a variable called loyaltyMemberStatus and assign the
value "SILVER"
		//		b. Create a variable called loyaltyMemberDiscount and assign the
value 0.0
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		//		c. Using a switch, set the value of loyaltyMemberDiscount based
on
		//			the following loyaltyMemberStatus scale:
		//			i. "SILVER" is 0.10
		//			ii. "GOLD" is 0.15
		//			iii. "PLATINUM" is 0.25
String loyaltyMemberStatus = "GOLD";
double loyaltyMemberDiscount = 0.0;
switch(loyaltyMemberStatus) {
case "SILVER":
	loyaltyMemberDiscount = .1;
	break;
case "GOLD":
	loyaltyMemberDiscount = .15;
	break;
case "PLATINUM":
	loyaltyMemberDiscount = .25;
	break;
}


		// 8. Using the Loyalty Member Program variables from Question 7, do the
following:
		//		a. Create a variable called billTotal and assign a value
		//		b. Create a variable called adjustedTotal and assign it the billTotal
minus
		//			the loyaltyMemberDiscount percent of the billTotal
		//		c. If the adjustedBillTotal is greater than $500 upgrade the
		//			loyaltyMemberStatus from SILVER to GOLD or
from GOLD to PLATINUM

double billTotal = 640.50;
double adjustedTotal = billTotal - loyaltyMemberDiscount * billTotal;
System.out.println(adjustedTotal);

if (adjustedTotal > 500) {
	if (loyaltyMemberStatus == "SILVER") {
		loyaltyMemberStatus = "GOLD";
	} else if (loyaltyMemberStatus == "GOLD") {
		loyaltyMemberStatus = "PLATINUM";
	}

		// 9. Login -- username & password:
		//		a. Create two variables, username and password
		//		b. Create a conditional that prints one of the following:
		//			i. "login successful" if the username is
"Tommy123" and the password is "12345"
		//			ii. "access denied" otherwise
	String username = "Tommy123";
	String password = "12345";

	if (username.equals("Tommy123") && password.equals("12345")) {
		System.out.println("login successful");
	} else {
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                System.out.println("access denied");
        }



                //
                // LOOPS:
                //

                // 10. Write a for loop that prints each number from 0 to 9

                for (int i= 0; i< 10; i++) {
                        System.out.println(i);
                }
                // 11. Write a for loop that prints each number from 10 to 0 backwards
for (int i = 10; i >=0; i--) {System.out.println(i);
}

                // 12. Write a for loop that prints every other number from 0 to 100

                for (int i = 0; i <= 100; i++)
                if (i % 2 == 0) { System.out.println(i);
                }
                // 13. Write a for loop that iterates from 0 to 100 and prints
                //                              "EVEN" if the number is even and "ODD" if it's odd
for (int i = 0; i <= 100; i++)
        if (i % 2 == 0) { System.out.println(i + " EVEN");
        }
        else { System.out.println(i+ " ODD");
        }
        }
                // 14. Write a while loop that starts at 100 and iterates backwards by 1 until it
reaches 0
                //                              within the loop, divide each number by 3 and print the
remainder to the console.
int i = 100;
        while (i > 0)
                                {
                        System.out.println(i + " " + (i % 3));

        i--;}

        }
        }
```