

Java module 1

Exercises Day 2

1.1 - Conditionals	Entering a club
Instructions	Request the user's age. If they're 18 or older, print "Welcome to the club!"
Expected output example 1	How old are you? >>>25 Welcome to the club!
Expected output example 2	How old are you? >>>13

1.2 - Conditionals	Exam result
Instructions	Request the user for their exam result. If their score is 50 or above, print "You passed the exam!", otherwise print "You failed the exam".
Expected output example 1	Enter your exam score: >>>65 You passed the exam!
Expected output example 2	Enter your exam score: >>>13 You failed the exam.

1.3 - Conditionals	Buying tickets
Instructions	When buying movie tickets, if you're a student, the ticket price is 10€, otherwise the ticket price is 15€. Ask the user how many tickets they need and if they are a student, then print the total amount to be paid for the tickets.
Expected output example 1	How many tickets do you need: >>>3 Do you have student discount (y/n)? >>>y Total tickets price: 30 euros
Expected output example 2	How many tickets do you need: >>>4 Do you have student discount (y/n)? >>>n Total tickets price: 60 euros

1.4 - Conditionals	Comparing numbers
Instructions	Request the user to input two numbers. If they are equal, print "The numbers are equal." If the first number is greater than the second, print "The first number is greater." Otherwise, print "The second number is greater."
Expected output example 1	Enter the first number: >>>15 Enter the second number: >>>33 The second number is greater.
Expected output example 2	Enter the first number: >>>23 Enter the second number: >>>23 The numbers are equal.

1.5 - Conditionals	University admission
Instructions	You're checking eligibility for admission to a university. If the applicant's age is between 18 and 25, and their GPA (average result of all the grades on a 7 point scale grade) is 3.0 or above, print "Congratulations! You're eligible for admission." If the applicant meets only one of the criteria (age or GPA), print "You don't meet all the requirements." Otherwise, print "Sorry, you're not eligible for admission."
Expected output example 1	Enter your age: >>>20 Enter your GPA: >>>4.5 Congratulations! You're eligible for admission.
Expected output example 2	Enter your age: >>>26 Enter your GPA: >>>4.5 You don't meet all the requirements.

2.1 - Nested Conditionals	Promotional products
Instructions	<p>The program recommends products in the promotion.</p> <p>If the buyer wants a recommendation, the program asks for a category of goods.</p> <ul style="list-style-type: none"> - if the category is "sweets," "Gummy fruit for 200 coins" is recommended; - for any other category, "Lingonberry juice for 140 coins."

	If the buyer does not want any products in the promotion, the program politely says goodbye: "Let us know if you change your mind!"
Expected output example 1	Would you like promotional items (yes/no)? >>>yes Enter a category: >>>sweets Gummy fruit for 200 coins
Expected output example 2	Would you like promotional items (yes/no)? >>>no Let us know if you change your mind!

2.2 - Nested Conditionals	3=1 promotion
Instructions	The supermarket has launched the "1=3" promotion. The buyer can purchase any three goods, pay for the most expensive of them, and receive the others as a gift. Write a program that determines the highest price out of three and prints the amount to pay.
Expected output example 1	Price of product 1: >>>1220 Price of product 2: >>>2100 Price of product 3: >>>140 Promotion! Total for three items: 2100
Expected output example 2	Price of product 1: >>>1220 Price of product 2: >>>350 Price of product 3: >>>1220 Promotion! Total for three items: 1220

2.3 - Nested Conditionals	Happy hour discount
Instructions	The supermarket asked to change their program with a special happy hour offer: 1. If a purchase is made between 8 pm to 10 pm inclusive, then the promotion is triggered and the amount to be paid is halved. 2. If a purchase is made between 8 am to 7 pm inclusive, then there is no promotion. The program should print: "Total to pay:" and the grand total.

	3. When you input at any other time, you cannot buy goods, the program should print: "The store is closed!"
Expected output example 1	Amount: >>>2000 Current time (hour): >>>20 Promotion! Total to pay: 1000.0
Expected output example 2	Amount: >>>2000 Current time (hour): >>>12 Total to pay: 2000

3.1 - Switch	Animal classification
Instructions	Write a program that uses a switch statement to print a type of animal based on its classification. <ul style="list-style-type: none"> • If the user selects "Domestic", print "Cat, Dog" • If the user selects "Wild", print "Lion, Tiger" • If the user selects "Marine", print "Dolphin, Shark" • Others are Unknown classification
Expected output example 1	Select an animal classification (Domestic, Wild or Marine): >>>Wild Lion, Tiger
Expected output example 2	Select an animal classification (Domestic, Wild or Marine): >>>Birds Unknown classification

3.2 - Switch	Food classification
Instructions	Write a program using the switch statement that prints a message for various types of food (e.g., "Fruits", "Vegetables", "Meat"). Group multiple items under a single case label. <ul style="list-style-type: none"> • If the user selects "Apple", "Banana" or "Cherry", print "Fruit" • If the user selects "Carrot", "Spinach" or "Potato", print "Vegetable" • If the user selects "Chicken", "Beef" or "Pork", print "Meat" • Others are Unknown classification
Expected output example 1	Enter a food: >>>Beef Meat
Expected output example 2	Enter a food: >>>Ice Cream

	Unknown classification
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4.1 - Strings	Calculate the length of a String
Instructions	Write a program to request the customer for a review, thank them and print the length of their review.
Expected output	Leave a travel review: >>>Cool! Thanks for the review! It is 5 characters long.

4.2 - Strings	Search for words in Strings
Instructions	<p>The owner of a restaurant is interested in whether clients like their specialties: chocolate cake and barbecue.</p> <p>Write a program that asks the user for the dishes they like and prints the search result:</p> <p>Take into account that the client's review might include uppercase and lowercase letters.</p>
Expected output	Enter your favorite dishes: >>>barbecue, burger, pizza chocolate cake: not found barbecue: found