

Java module 1

Exercises Day 3

1.1 - While	Counting down
Instructions	Print the numbers counting down from 10 using a while loop
Expected output	10 9 8 7 6 5 4 3 2 1 0

1.2 - While	Enter the right password
Instructions	The user should enter a password, and it keeps asking until they enter the correct one. The right password is "password123"
Expected output	Enter the password: >>>ABC123 Incorrect password. Try again. Enter the password: >>>password123 Password correct!

1.3 - While	Guessing a number
Instructions	<p>The program will select a random number between 1 and 100. The user will be asked to guess the number until he finds the right one. Each time, the program will tell him if the number is higher or lower.</p> <p>hint: to choose a random number use Math.random() https://www.w3schools.com/java/java_howto_random_number.asp</p>
Expected output	Guess the number (1-100): >>>33 Too low. Try again. Guess the number (1-100): >>>87 To high. Try again. Guess the number (1-100): >>>57 Congratulations! You guessed the number!

1.4 - While	Find the greatest number
Instructions	Write a program that reads numbers from the user until the user enters -1. The program should print the largest number entered.
Expected output	Enter any number: >>> 33 Enter any number: >>> -20 Enter any number: >>> 57 Enter any number: >>> -1 The greatest number was 57

2.1 - String +While	Ask for a word starting with A
Instructions	Ask the user to type a word starting with the letter A. Check if it's correct, otherwise ask again until it is correct.
Expected output	Enter a word starting with A: >>> Kiwi Incorrect! Enter a word starting with A: >>> Apple Correct!

2.2 - String +While	Uppercase or Lowercase?
Instructions	Ask the user a number, and a sentence. if the number is even, output the sentence in lowercase; otherwise, output it in uppercase.
Expected output	Enter a number: >>> 7 Enter a sentence: >>> Java is so Cool! JAVA IS SO COOL!

3.1 - Casting	byte to short
Instructions	Create a byte variable with the value 100. Cast it to a short and print the value. Is it implicit or explicit casting?

3.2 - Casting	long to int
Instructions	Create a long variable with the value 100000L. Cast it to an int and print the value. Is it implicit or explicit casting?

3.3 - Casting	long to float
Instructions	Create a long variable with the value 100000L. Cast it to a float and print the value. Is it implicit or explicit casting?

3.4 - Casting	What would the output be?
Instructions	<pre>short shortVal = 128; byte byteVal = (byte) shortVal; // Explicit casting System.out.println(byteVal);</pre> <p>Try it out. This conversion lead to data lost due to byte's range of -128 to 127.</p>