

Java 2 Self Test

Write 3 Java projects based on each of the specified requirements. All 3 projects need to be completed (including testing) in 1 hour or less, Calendar may take longer.

1. Project #1: Calendar Printer

- a. Ask user for 2 inputs:
 - i. The number of days in the month (between 28 and 31)
 - ii. The day of month the first Sunday falls on (between 1 and 7)
- b. Print out an ASCII Calendar with the correct number of days, and with the first Sunday on the correct day.
- c. Hint: Use if statements, modulus, and for loops. Try to do this with as little code as possible. You may also find having a separate method that takes numbers of one or two digits, and returns a String with a space if the number is one digit, or the number if it is two digits e.g. 1 --> " 1", 10 --> "10".

Example Calendar Output:

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How many days are in the month?
Enter a number between 28 and 31 inclusive.
29
What date is the first Sunday?
Enter a number between 1 and 7 inclusive.
4
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Sun	Mon	Tue	Wed	Thu	Fri	Sat
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29		

2. Project #2: Find the LCM (Least Common Multiple)

- a. Ask user for 2 inputs:
 - i. The 1st number
 - ii. The 2nd number
- b. Calculate and display the LCM of the 2 numbers
- c. Don't forget to have a way for the user to exit the program. For example: enter "e" to exit
- d. Example: find LCM (8,12). Enter 8 as the 1st number and 12 as the 2nd number. This program should display the following output: The LCM (8,12) is 24

3. Project #3: Guess the number game

- a. Use random function to generate a number between 1 and 100 unknown to user
- b. Ask user for a number between 1 – 100
- c. If the user input is the same with the number that the computer generate, then display a positive message, such as "Nice job! You guessed it!"

- d. If the user input is not the same, then display a try again message, such as “Not quite right, guess higher” if the user guessed too low.
- e. Don’t forget to have a way for the user to exit the program. For example: enter “e” to exit