**CHRIST (Deemed to be University)**

**Department of Computer Science**

**MSc – Artificial Intelligence and Machine Learning**

**Name:** Syed Mohammed Luqmaan (2448552)

**Course:** Java Lab

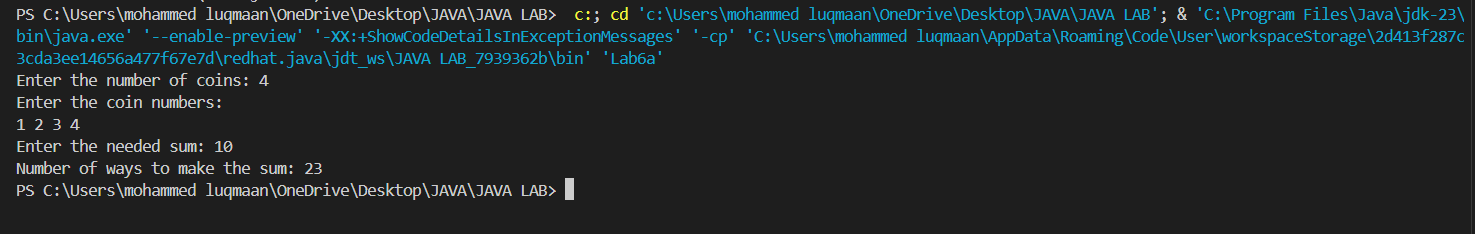
**Lab Experiment:** 6

**DESCRIPTION:**

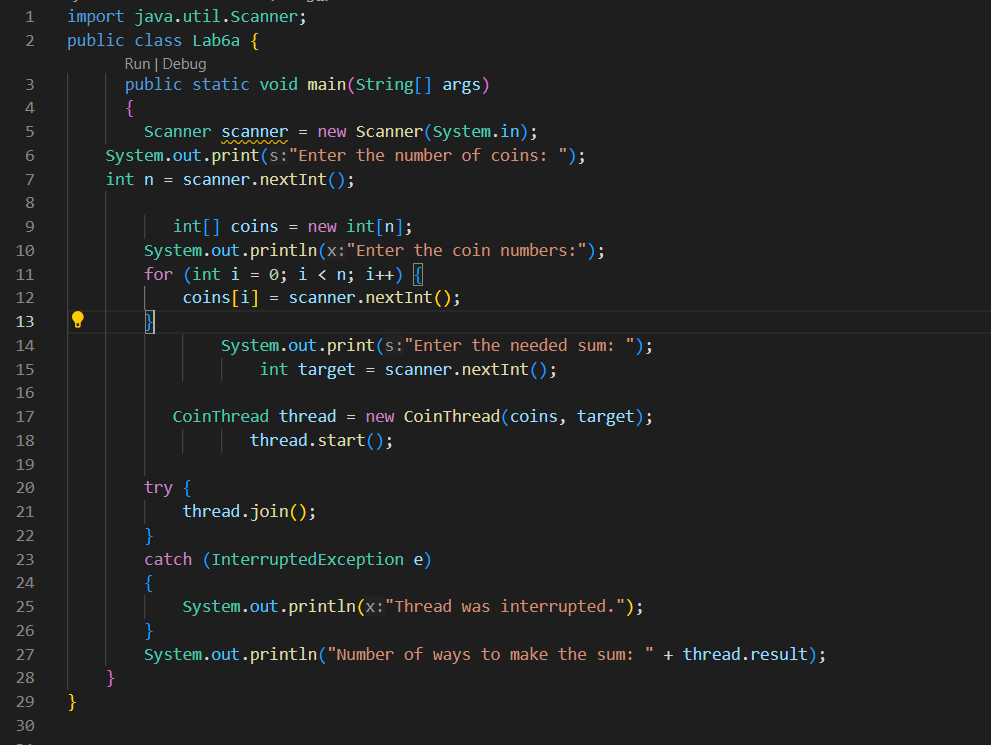
**6.a.**

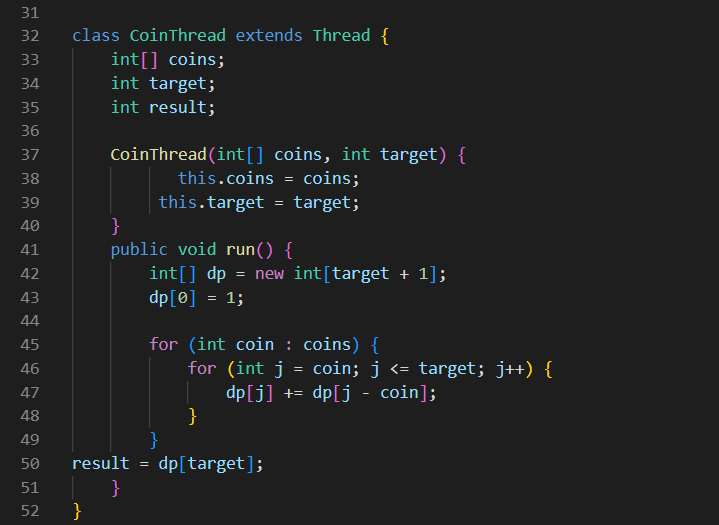
**This project calculates the number of ways to make a target sum using given coin denominations. It uses a simple multithreaded approach to optimize the computation and leverages dynamic programming to solve the problem efficiently. The program takes input for the number of coins, their denominations, and the target sum from the user. A thread is used to calculate combinations, making the solution more organized. The implementation is beginner-friendly and avoids complex logic for easy understanding. Ideal for learning basic multithreading concepts and dynamic programming in Java.**

**Output:**

**[](https://private-user-images.githubusercontent.com/185887254/391426979-65d203ce-bdf4-436c-bc37-d33f386b0857.png?jwt=eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJpc3MiOiJnaXRodWIuY29tIiwiYXVkIjoicmF3LmdpdGh1YnVzZXJjb250ZW50LmNvbSIsImtleSI6ImtleTUiLCJleHAiOjE3MzMxMTk3OTQsIm5iZiI6MTczMzExOTQ5NCwicGF0aCI6Ii8xODU4ODcyNTQvMzkxNDI2OTc5LTY1ZDIwM2NlLWJkZjQtNDM2Yy1iYzM3LWQzM2YzODZiMDg1Ny5wbmc_WC1BbXotQWxnb3JpdGhtPUFXUzQtSE1BQy1TSEEyNTYmWC1BbXotQ3JlZGVudGlhbD1BS0lBVkNPRFlMU0E1M1BRSzRaQSUyRjIwMjQxMjAyJTJGdXMtZWFzdC0xJTJGczMlMkZhd3M0X3JlcXVlc3QmWC1BbXotRGF0ZT0yMDI0MTIwMlQwNjA0NTRaJlgtQW16LUV4cGlyZXM9MzAwJlgtQW16LVNpZ25hdHVyZT0yNjJkNzExOWU2MTU1YWJhOWUwNTk0YzY3Y2NlY2Q3ZWI5MTdkNTM4MmRmYTk1ODJjMzFmMzM3ZTRhMzFlZjcyJlgtQW16LVNpZ25lZEhlYWRlcnM9aG9zdCJ9.9U546x19jMqo9yW6RKQErD9gBEUnJIU-tcmS5zsDkAU)**

**Screenshots:**

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