# Dining Philosophers' Problem Revisited

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## Abstract:

The dining philosophers' is a classical problem studied in computer science with wide applications. This paper aims to present the various approaches to the problem and exhaustively present both classical and modern solutions to the problem from a discussion point of view. In this regards, the importance of the dining philosophers problem in computer science are clearly explained and the challenges associated with the problem and the with each solution approach to the problem are clearly analyzed. Furthermore, language implementation issues are examined, and appropriate guidelines provided for successful implementation of solutions in Python, Java and C++. Finally, future research directions are also suggested.

## Keywords:

dining philosophers' problem, concurrent processes, deadlock and starvation, resource allocation, solutions and applications.