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# Programming Assignment 2

## Report

1. The goal of this programming assignment was to identify the performance and implementation tradeoffs between the linked list and array ADTs by implementing the Josephus problem game. Where N number of people sit in a circle and play the game. The game ends when only one person is left. People have to pass a potato certain number of times before the person holding the potato is eliminated.
2. Circular linked list and array is implemented with the help of iterators. The program keeps track of the address to which iterator points to and if iterator == object.end() then the program sets the iterator back to beginning as follows: iterator = object.begin(). Henceforth the idea of circular linked list and array are implemented.

A player is eliminated using the function erase. Erase function uses the STL function erase for deleting a certain element in lists and vectors with the help of iterators.

1. Machine Specification:- Intel I7 6700HQ processor with a clock speed of 2.6 GHz (8 CPU). Operating System: Windows 10 (64-bit). RAM: 16 GBs.

Windows machine with Visual Studio were used to test this program.