

Circular Linked List

Objective

The objective of this lab is to understand Circular Linked list.

Task

Create a circular link list to solve the Josephus problem. Among various variations of Josephus problem here you have to build a musical object passing game. Do the following to build this game:

1. Insert players in a circular linked list.
2. Play music and pass object among player for a while and then stop.
3. Delete the player with object when music stops.

Repeat the steps 2 and 3 till one player is left and this player will be the winner of this game.

Hint: To perform steps 2, Move the pointer in the list by selecting a counter R. To keep this game unbiased use random number rather than static count.

<pre>class node { String name; node next; //constructor }</pre>	<pre>Public class Game{ node tail; int size = 0; Game(){ tail = null; } public void insert(String player) { code here for insert at back } public String playGame(){ node curr = tail.next; // first node node prev = tail; // R=generate random number while(curr!=prev){ //move pointer in list R time // delete node where pointer stop } return tail.name; // winner } Public String toString(){ code here } }</pre>
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