#include <stdio.h>

#include <stdlib.h>

#include <inttypes.h>

struct Node

{

int data;

struct Node\* npx;

};

struct Node\* XOR (struct Node \*a, struct Node \*b)

{

return (struct Node\*) ((uintptr\_t) (a) ^ (uintptr\_t) (b));

}

void insert(struct Node \*\*head\_ref, int data)

{

struct Node \*new\_node = (struct Node \*) malloc (sizeof (struct Node) );

new\_node->data = data;

new\_node->npx = \*head\_ref;

if (\*head\_ref != NULL)

{

(\*head\_ref)->npx = XOR(new\_node, (\*head\_ref)->npx);

}

\*head\_ref = new\_node;

}

void printList (struct Node \*head)

{

struct Node \*curr = head;

struct Node \*prev = NULL;

struct Node \*next;

printf ("Following are the nodes of Linked List: \n");

while (curr != NULL)

{

printf ("%d ", curr->data);

next = XOR (prev, curr->npx);

prev = curr;

curr = next;

}

}

int main ()

{

struct Node \*head = NULL;

insert(&head, 10);

insert(&head, 20);

insert(&head, 30);

insert(&head, 40);

printList (head);

return (0);

}

Output

