PROGRAM TO REVERSE A LINKED LIST

#include <stdio.h>

#include <stdlib.h>

struct Node {

int data;

struct Node\* next;

};

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

struct Node\* newNode = (struct Node\*)malloc(sizeof(struct Node));

newNode->data = data;

newNode->next = \*head;

\*head = newNode;

}

void reverse(struct Node\*\* head) {

struct Node\* prev = NULL;

struct Node\* current = \*head;

struct Node\* next = NULL;

while (current != NULL) {

next = current->next;

current->next = prev;

prev = current;

current = next;

}

\*head = prev;

}

void printList(struct Node\* head) {

struct Node\* temp = head;

while (temp != NULL) {

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

temp = temp->next;

}

printf("\n");

}

int main() {

struct Node\* head = NULL;

// Insert elements into linked list

insert(&head, 1);

insert(&head, 2);

insert(&head, 3);

insert(&head, 4);

printf("Original linked list: ");

printList(head);

// Reverse the linked list

reverse(&head);

printf("Reversed linked list: ");

printList(head);

// Free memory

struct Node\* temp;

while (head != NULL) {

temp = head;

head = head->next;

free(temp);

}

return 0;

}