SOUTHEAST UNIVERSITY

Meeting the Challenges of Time

Department Of CSE

Cse Assignment

Assignment No:04

Date of submission:

Course name : CSE LAB

Course code : 241

Section : 9

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[lecturer, Department of CSE]

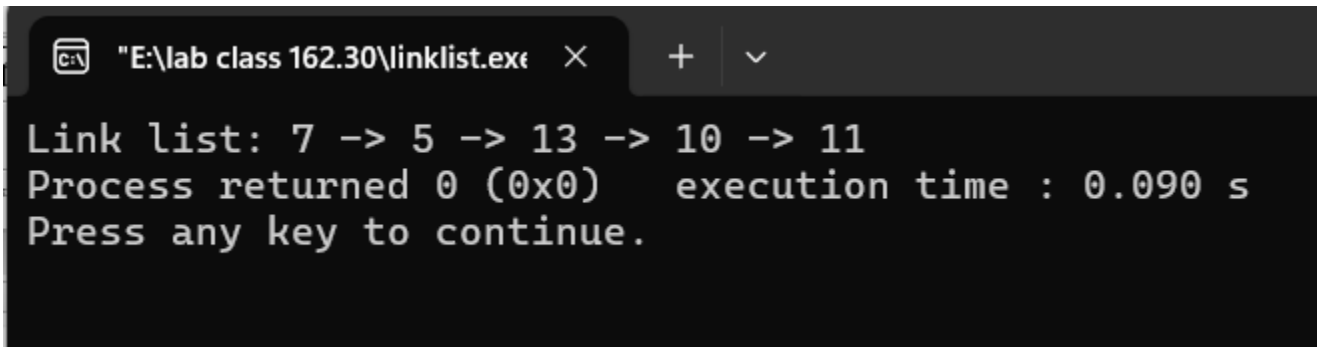
Initial : YMA

Code 1:

```
#include<stdio.h>
#include<stdlib.h>

struct node{
   int data;
   struct node*next;
};
int main(){
   struct node *head = NULL;
   struct node *p = NULL;
   struct node *q = NULL;
   struct node *r = NULL;
   struct node *s = NULL;
   struct node *t = NULL;

   p = malloc(sizeof(struct node));
   q = malloc(sizeof(struct node));
   r = malloc(sizeof(struct node));
   s = malloc(sizeof(struct node));
   t = malloc(sizeof(struct node));

   p->data = 7;
   q->data = 5;
   r->data = 13;
   s->data = 10;
   t->data = 11;
```

```
    head = p;
    p->next = q;
    q->next = r;
    r->next = s;
    s->next = t;
    t->next = NULL;

    printf("Link list: ");
    struct node *temp = p;
    while(temp){
        printf("%d", temp->data);
        if(temp->next){
            printf(" -> ");
        }
        temp = temp->next;
    }
    return 0;
}
```

Terminal:

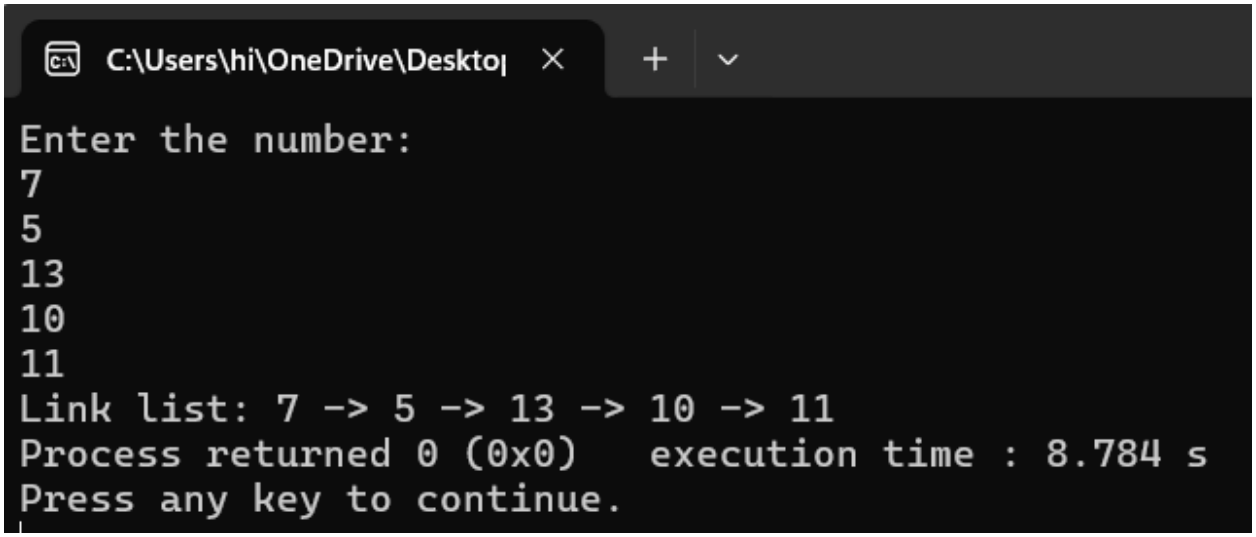


Code 2:

```
#include<stdio.h>
#include<stdlib.h>
struct node{
   int data;
   struct node*next;
};
int main(){
   struct node *head = NULL;
   struct node *p = NULL;
   struct node *q = NULL;
   struct node *r = NULL;
   struct node *s = NULL;
   struct node *t = NULL;
   p = malloc(sizeof(struct node));
   q = malloc(sizeof(struct node));
   r = malloc(sizeof(struct node));
   s = malloc(sizeof(struct node));
   t = malloc(sizeof(struct node));

   head = p;
   p->next = q;
   q->next = r;
   r->next = s;
   s->next = t;
   t->next = NULL;
```

```
    struct node *current = head;
    printf("Enter the number:\n");
    while(current != NULL){
        scanf("%d", &current->data);
        current = current->next;
    }
    printf("Linked list: ");
    struct node *temp = p;
    while(temp){
        printf("%d", temp->data);
        if(temp->next){
            printf(" -> ");
        }
        temp = temp->next;
    }
    return 0;
}
```

Terminal:



Code 3:

```
#include<stdio.h>
#include<stdlib.h>

struct node{
   int data;
   struct node*next;
};
int main(){
   int n, i;
   printf("Enter the node number:\n");
   scanf("%d", &n);

   struct node *head = NULL;
   struct node *ptr = NULL;
   struct node *newNode;
   printf("Enter the data\n");
   for(i = 0; i < n; i++){

   newNode = malloc(sizeof(struct node));
   scanf("%d", &newNode->data);
   newNode->next = NULL;
   if( head == NULL){
      head = newNode;
      ptr = head;
   } else{
      ptr->next = newNode;
```

```
        ptr = newNode;
    }
}
    printf("\n");
    printf("Link list: ");
    struct node *temp = head;
    while(temp){
        printf("%d", temp->data);
        if(temp->next){
            printf(" -> ");
        }
        temp = temp->next;
    }
    return 0;
}
```

Terminal: