DS LAB TEST-2

PROGRAM-2

2. ABC shopping mall decided to bill all the items (name, cost) shopped in Last-In-First-Out order Write a program to stimulate the above scenario using Linked list.

```c
struct node
{
    int val;
    struct node * next;
};
struct node * head;

Push function
{
    int val;
    struct node* ptr = (struct node *) malloc (size of (struct node));
    if (ptr == NULL)
    {
        printf ("not push not able to push the element");
    }
    else
    {
        printf ("not able to push the element");
    }
    else
    {
        printf (" Enter the value");
        scanf ("%d", &val);
        if (head == NULL)
```

```c
{
    ptr -> val = val;
    ptr -> next = NULL;
    head = ptr;
}
else
{
    ptr -> val = val;
    ptr -> next = head;
    head = ptr;
}
printf (" Item pushed ");
}
}


pop()
{
    int item;
    struct node * ptr;
    if (head == NULL)
    {
        printf ("underflow");
    }
    else
    {
        item = head -> val;
        ptr head;
        head = head -> next;
        free(ptr);
        printf (" Item popped ");
    }
}
}
```

```c
display()
{
    int i;
    struct node * ptr;
    ptr = head;
    if (ptr == NULL)
    {
        printf("Stack is empty \n");
    }
    else
    {
        printf("printing stack elements \n");
        while (ptr != NULL)
        {
            printf("%d \n", ptr->val);
            ptr = ptr->next;
        }
    }
```