

Design an appropriate data structure and implement to achieve the below operation

The back button in a browser saves all the URLs you have visited previously. Each time you visit a new page, it is stored. When you press the back button, the current URL is removed and the previous URL is accessed.

Design and implement the below problem with most suitable data structure.

```
#include<stdio.h>
#include<string.h>
#include<math.h>
#include<malloc.h>
#include<stdlib.h>
struct node
{
    char item[100];
    struct node *next;
};
typedef struct node *Node;
Node getNode()
{
    Node x;
    x=(Node)malloc(sizeof(struct node));
    return x;
}
Node insert_end(Node first,char data[])
{
    Node last;
    Node new_node;
    new_node=getNode();
    strcpy(new_node->item,data);
    new_node->next=NULL;
```

```

if(first==NULL)
{
    return new_node;
}
last=first;
while(last->next!=NULL)
{
    last=last->next;
}
last->next=new_node;
return first;
}

Node delete_end(Node first)
{
    Node prev,cur;
    if(first==NULL)
    {
        printf("List Is Empty And Cannot be deleted\n");
        return first;
    }
    cur=first;
    while(cur->next!=NULL)
    {
        prev=cur;
        cur=cur->next;
    }
    prev->next=NULL;
    free(cur);
    return first;
}

void display(Node first)

```

```

{

Node temp;
if(first==NULL)
{
    printf("List Is Empty\n");
}
for(temp=first;temp!=NULL;temp=temp->next)
{
    printf("URL: %s\n",temp->item);
}
}
int main()
{
    int option;
    Node head=NULL;
    char name[100];
    do
    {
        printf("1:VISIT NEW SITE\n");
        printf("2:GO BACK\n");
        printf("3:DISPLAY SITES YOU HAVE VISITED\n");
        printf("4:EXIT\n");
        printf("Enter Your Option\n");
        scanf("%d",&option);
        switch(option)
        {
            case 1:
                printf("ENTER THE URL ADDRESS\n");
                scanf("%s",name);
                head=insert_end(head,name);

```

```
        break;
    case 2:
        head=delete_end(head);
        break;
    case 3:
        display(head);
        break;
    }
}while(option!=4);
}
```

Output:

```
www.google.com
1:VISIT NEW SITE
2:GO BACK
3:DISPLAY SITES YOU HAVE VISITED
4:EXIT
Enter Your Option
1
ENTER THE URL ADDRESS
www.facebook.com
1:VISIT NEW SITE
2:GO BACK
3:DISPLAY SITES YOU HAVE VISITED
4:EXIT
Enter Your Option
1
ENTER THE URL ADDRESS
www.stackoverflow.com
1:VISIT NEW SITE
2:GO BACK
3:DISPLAY SITES YOU HAVE VISITED
4:EXIT
Enter Your Option
1
ENTER THE URL ADDRESS
www.w3schools.com
1:VISIT NEW SITE
2:GO BACK
3:DISPLAY SITES YOU HAVE VISITED
4:EXIT
Enter Your Option
3
URL: www.google.com
URL: www.facebook.com
URL: www.stackoverflow.com
URL: www.w3schools.com
1:VISIT NEW SITE
2:GO BACK
3:DISPLAY SITES YOU HAVE VISITED
4:EXIT
Enter Your Option
2
1:VISIT NEW SITE
2:GO BACK
3:DISPLAY SITES YOU HAVE VISITED
4:EXIT
Enter Your Option
3
URL: www.google.com
URL: www.facebook.com
URL: www.stackoverflow.com
```