

/\*Write a menu driven program to implement a double linked list with the following options: 1-Insert at Beginning 2-Display 3-Delete from Beginning 4-Exit\*/

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

```
struct node
{
    int data;
    struct node *next, *prev;
} * start, *newnode, *current;
```

```
main()
{
    int x, ch;
    printf("Enter the data of the 1st node");
    scanf("%d", &x);
    newnode = (struct node *)malloc(sizeof(struct node));
    newnode->data = x;
    newnode->prev = NULL;
    newnode->next = NULL;
    start = newnode;
    current = newnode;
}
while (1)
{
    printf("1- Insert at beggining \n 2- Display \n 3- Delete at beggining \n 4- Exit \n");
    printf("Enter your choice");
    scanf("%d", &ch);

    switch (ch)
    {
        case 1:
            insertbeg();
            break;
        case 2:
            display();
            break;

        case 3:
            insertend();
            break;

        case 4:
            exit();

        default:
            printf("Invalid input");
            break;
    }
}
```

```
void insertbeg()
{
    int x;
    newnode = (struct node *)malloc(sizeof(struct node));
    printf("Enter the value of x");
    scanf("%d", &x);
    newnode->data = x;
    newnode->prev = NULL;
    newnode->next = start;
    start->prev = newnode;
    start = newnode;
}
```

```
void display()
{
    struct node *p;
    p = start;
    while (p != NULL)
    {
        printf("%d \t", p->data);
        p = p->next;
    }
}
```

```
void deletebeg()
{
    struct node *p;
    p = start;
    start = start->next;
    free(p);
    start->prev = NULL;
}
```