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

typedef struct data{
char name[];
int marks;
} data;

typedef struct Node {
struct data;
struct Node* prev;
struct Node* next;
} Node;

Node* createNode(struct value) {
Node* newNode = (Node*)malloc(sizeof(Node));
strcpy(newNode-> data, value);
newNode-> prev = 0;
newNode-> next = 0;
return newNode;
}

void displayList(Node* head)
{
Node* temp = head;
printf("\nDoubly Linked List Structure:\n");
printf("| %-10s | %-10s | %-5s | %-10s |\n", "Node Addr", "Prev Addr", "Data", "Next Addr");
while (temp != 0)
{
```

```
printf("| %-10p | %-10p | %-5s | %-10p |\n",(void*)temp,(void*)temp->prev,temp->data,(void*)temp->next);
temp = temp->next;
}
}

int main()
{
   Node* N1= createNode("ABC");
   Node* N2= createNode("BCD");
   Node* N3= createNode("CDE");
   Node* N4= createNode("DEF");
   Node* N5= createNode("EFG");
   N1->next=N2;
   N2->prev=N1;
   N2->next=N3;
   N3->prev=N2;
   N3->next=N4;
   N4->prev=N3;
   N4->next=N5;
   N5->prev=N4;
   displayList(N1);
   free(N1);
   free(N2);
   free(N3);
   free(N4);
   free(N5);

}
```

```
Doubly Linked List Structure:
| Node Addr  | Prev Addr  | Data  | Next Addr  |
| 0000000000701400 | 0000000000000000 | 1     | 0000000000701420 |
| 0000000000701420 | 0000000000701400 | 2     | 0000000000701440 |
| 0000000000701440 | 0000000000701420 | 3     | 0000000000701460 |
| 0000000000701460 | 0000000000701440 | 4     | 0000000000701480 |
| 0000000000701480 | 0000000000701460 | 5     | 0000000000000000 |

Process returned 0 (0x0)   execution time : 0.010 s
Press any key to continue.
```