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

typedef struct Node{
   char data[100];
   struct Node *prev;
   struct Node *next;
}Node;

Node* createNode(char value[]){
   Node* newNode=(Node*)malloc(sizeof(Node));
   if (newNode == NULL) {
      printf("Memory allocation failed!\n");
      return;
   }

   strcpy(newNode->data, value);
   newNode->prev = NULL;
   newNode->next = NULL;

   return newNode;
}

void displayList(Node *head){
   Node *temp=head;
   printf("\nDoubly linked list structure :\n");
   printf("---------------------------------\n");
   printf("|%-10s|%-10s|%-5s|%-10s|\n","Node Address","Prev Address","Data","Next Address");
   printf("---------------------------------\n");

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

```
    printf("--------------------------------\n");
}



int main(){
    Node *N1=createNode("Nitya");
    Node *N2=createNode("smruthi");
    Node *N3=createNode("Liesha");
    Node *N4=createNode("Aditi");
    Node *N5=createNode("Piggy");


    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);


    return 0;
}
```

OUTPUT :

```
Doubly linked list structure :
--------------------------------
|Node Address|Prev Address|Data |Next Address|
--------------------------------
|00000000006C1460|0000000000000000|Nitya     |00000000006C14E0|
|00000000006C14E0|00000000006C1460|smruthi   |00000000006C1560|
|00000000006C1560|00000000006C14E0|Liesha    |00000000006C15E0|
|00000000006C15E0|00000000006C1560|Aditi     |00000000006C1660|
|00000000006C1660|00000000006C15E0|Piggy     |0000000000000000|
--------------------------------
```