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

struct Tnode {
    int data;
    struct Tnode *prev;
    struct Tnode *next;
};
typedef struct Tnode node;
node *head;

void init(){
    head=NULL;
}

int isEmpty(){
    if(head==NULL) return 1;
    else return 0;
}

void insertDepan(int databaru){
    node *baru=(node*)malloc(sizeof(node));
    baru->data=databaru;
    baru->prev=NULL;
    baru->next=NULL;
    if(isEmpty()==1){
        head=baru;
        head->prev=NULL;
        head->next=NULL;
    }
    else{
        baru->next=head;
        baru->prev=baru;
        head=baru;
    }
}

void insertBelakang(int databaru){
    node *baru, *bantu;
    baru=(node*)malloc(sizeof(node));
    baru->data=databaru;
    baru->next=NULL;
    baru->prev=NULL;
    if(isEmpty()==1){
        head=baru;
        head->next=NULL;
        head->prev=NULL;
    }
    else{
        bantu=head;
        while(bantu->next!=NULL){

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        bantu=bantu->next;
    }
    bantu->next=baru;
    baru->prev=bantu;
}
}
void tampil(){
    node *bantu;
    bantu = head;
    if(isEmpty()==0){
        while(bantu!=NULL){
            printf(" %d ",bantu->data);
            bantu=bantu->next;
        }
        printf("\n");
    } else printf("List kosong\n");
}

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void hapusDepan (){
    node *hapus;
    int d;
    if (isEmpty()==0){
        if(head->next != NULL){
            hapus = head;
            d = hapus->data;
            head = head->next;
            head->prev = NULL;
            free(hapus);
        } else {
            d = head->data;
            head = NULL;
        }
    }
}

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void hapusBelakang(){
    node *hapus;
    int d;
    if (isEmpty()==0){
        if(head->next != NULL){
            hapus = head;
            while(hapus->next!=NULL){
                hapus = hapus->next;
            }
            d = hapus->data;
            hapus->prev->next = NULL;
            free(hapus);
        } else {
            d = head->data;
            head = NULL;
        }
    }
}

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    }  
}  
int main()  
{  
    init();  
    tampil();  
    insertDepan(2);  
    tampil();  
}
```