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#include<stdio.h>
#include <stdlib.h>
#define N 5
int stack[N];
int top=-1;

void push (){
    int x;
    printf("enter data.");
    scanf("%d",&x);
    if(top==N-1){
        printf("stack overflow\n");
    }
    else{
        top++;
        stack[top]=x;
        printf("data pushed sucessfully\n");
    }
}

void pop(){
    int x;
    if(top== -1){
        printf("stack underflow\n");
    }
    else{
        x=stack[top];
        top--;
        printf("%d removed\n",x);
    }
}

void peek (){
    if(top== -1){
        printf("stack underflow\n");
    }
}
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    }
    else{
        printf("data is %d \n",stack[top]);
    }
}

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void display (){
    int i;

    if(top== -1){
        printf("stack underflow\n");
    }
    else{
        for(i=top;i>=0;i--){
            printf("%d, ",stack[i]);
        }
    }
}

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int main(){
    int ch;
    do{
        printf("enter choice: *1.push 2.pop 3.peek 4.display 5.exit \n");
        scanf("%d",&ch);
        switch(ch){
            case 1: push();
                break;
            case 2: pop();
                break;
            case 3:peek();
                break;
            case 4:display();
                break;
            case 5: exit(0);
        }
    }
}

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                break;
            default: printf("invalid choice\n");
        }
    }
    while(ch!=0);
    return 0;
}
```