

// Online C compiler to run C program online

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#include <stdio.h>

int a[5];

int maxsize=5;

int top=-1;

void push(int item){
    if (top == maxsize - 1){
        printf("stack is full\n");
    }
    else {
        top=top+1;
        a[top]=item;
        printf("%d pushed to stack\n",item);
    }
}

void pop(){
    int item;
    if (top== -1){
        printf("stack is empty");
    }

    else {
        item = a[top];
        printf("%d popped from stack\n",item);
        top=top-1;
    }
}

void display() {
    int i;
```

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if (top == -1){
    printf("stack is empty\n");
}
else {
    printf("the elements of stack are : ");
    for (i=top; i>=0; i--){
        printf("%d ", a[i]);
    }
    printf("\n");
}
}

int main() {
    int choice, item;

    while(1){
        printf("\n....stack menu...\n");
        printf("1.push\n");
        printf("2.pop\n");
        printf("3.display\n");
        printf("4.exit\n");
        printf("enetr ur choice ");
        scanf("%d", &choice);
        switch (choice) {
            case 1:
                printf("enter the element to push");
                scanf("%d", &item);
                push(item);
                break;
            case 2:
                pop();
                break;

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    case 3:
        display();
        break;
    case 4:
        printf("exiting.....\n");
        return 0;
    default:
        printf("invalid choice!");
}
}
}

```

```

C:\Users\NETRA TMI\OneDrive
....stack menu...
1.push
2.pop
3.display
4.exit
enetr ur choice 1
enter the element to push4
4 pushed to stack

....stack menu...
1.push
2.pop
3.display
4.exit
enetr ur choice 1
enter the element to push6
6 pushed to stack

....stack menu...
1.push
2.pop
3.display
4.exit
enetr ur choice 1
enter the element to push8
8 pushed to stack

....stack menu...
1.push
2.pop
3.display
4.exit
enetr ur choice 1
enter the element to push9
9 pushed to stack

....stack menu...
1.push
2.pop
3.display

```

```
'C:\Users\NETRATM\OneDrive' x + v
...stack menu...
1.push
2.pop
3.display
4.exit
enetr ur choice 1
enter the element to push9
9 pushed to stack

...stack menu...
1.push
2.pop
3.display
4.exit
enetr ur choice 3
the elements of stack are : 9 8 6 4

...stack menu...
1.push
2.pop
3.display
4.exit
enetr ur choice 2
9 popped from stack

...stack menu...
1.push
2.pop
3.display
4.exit
enetr ur choice
```

21°C
Mostly clear

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