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// Online C compiler to run C program online

#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;
```

```
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:
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    display();
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```
    break;
```

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case 4:
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    printf("exiting.....\n");
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```
    return 0;
```

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default:
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    printf("invalid choice!");
```

```
}
```

```
}
```

```
}
```

```
....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\NETRA TM\OneDrive* + - X
....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
```



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