

```
#include <stdio.h>
#define size 3
int top = -1;
```

DISHA B.

IBM19C9050

25/09/2020.

```
int main(int argc, char **argv)
```

```
{
```

```
    int stack[size];
```

```
    int choice, element;
```

```
    char ch;
```

```
    do
```

```
    {
```

```
        printf("Enter the choice \n");
```

```
        printf("1. Push \n");
```

```
        printf("2. Pop \n");
```

```
        printf("3. Display \n");
```

```
        scanf("%d", &choice);
```

```
        switch(choice)
```

```
        {
```

```
            case 1: printf("Enter the element which is  
to be pushed \n");
```

```
                    scanf("%d", &element);
```

```
                    push(stack, element);
```

```
                    break;
```

```
            case 2: element = pop(stack);
```

```
                    if (element == -1)
```

```
                        printf("Stack underflow");
```

```
                    else
```

```
                        printf("popped element is %d \n",  
element);
```

```
                    break;
```


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```
case 3: display(stack);  
        break;  
default: printf("Invalid choice");  
{  
    printf("Do you want to continue:\n");  
    fflush(stdin);  
    scanf("%c", &ch);  
} while(ch == 'y' || ch == 'Y');  
return 0;  
}
```

```
void push(int stack[], int ele)  
{
```

```
    if (top == size-1)  
    {  
        printf("Stack overflow");  
    }  
    else  
    {
```

```
        top++;  
        stack[top] = ele;  
    }
```

```
int pop(int stack[])  
{
```

```
    int pop_ele;  
    if (top == -1)  
        return -1;  
    else
```

```
{  
    pop_ele = stack[top];  
    top--;
```

②

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```
    return (populi);  
}  
}
```

```
void display(int stack[])
```

```
{  
    int i;  
    printf("The stack elements\n");  
    for (i = top; i >= 0; i--)  
    {  
        printf("%d\t", stack[i]);  
    }  
}
```