

CODE:

```
#include <stdio.h>
#define stack_size 5
int top=-1;
int s[10];
int item;
void push()
{
    if(top==stack_size-1)
    {
        printf("stack overflow");
        return;
    }
    else
    {
        top=top+1;
        s[top]=item;
    }
}
int pop()
{
    if(top==-1)
    {
        return -1;
    }
    else
    {
        return s[top--];
    }
}
void display()
{
    int i;
    if(top==-1)
    {
        printf("Stack empty");
        return;
    }
    else
    {
        printf("Contents of stack \n");
        for(i=top;i>=0;i--)
        {
            printf("%d\n",s[i]);
        }
    }
}

int main()
```

```

{
    int item_deleted;
    int choice;
    for(;;)
    {
        printf("\n1.push 2.pop 3.display 4.exit \n");
        printf("enter choice \n");
        scanf("%d",&choice);
        switch(choice)
        {
            case 1:printf("Enter Item : ");
                    scanf("%d",&item);
                    push();
                    break;
            case 2:item_deleted=pop();
                    if(item_deleted==-1)
                    {
                        printf("stack empty \n");
                    }
                    else
                    {
                        printf("item deleted is %d\n",item_deleted);
                    }
                    break;
            case 3:display();
                    break;
            default:exit(0);
        }
    }
    getch();
}

```

## OUTPUT:

```
main.c:85:21: warning: implicit declaration of function 'exit' [-Wimplicit-function-declaration]
main.c:85:21: warning: incompatible implicit declaration of built-in function 'exit'
main.c:85:21: note: include '<stdlib.h>' or provide a declaration of 'exit'
main.c:89:5: warning: implicit declaration of function 'getch' [-Wimplicit-function-declaration]

1.push 2.pop 3.display 4.exit
enter choice
1
Enter Item : 34

1.push 2.pop 3.display 4.exit
enter choice
3
Contents of stack
34

1.push 2.pop 3.display 4.exit
enter choice
1
Enter Item : 45

1.push 2.pop 3.display 4.exit
enter choice
3
Contents of stack
45
34

1.push 2.pop 3.display 4.exit
enter choice
```

