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```
/* To pop and push items in a stack ADT*/
```

```
#include <stdio.h>
```

```
#include <alloc.h>
```

```
#define MAX 10
```

```
void *stack[MAX] ; /*Stack ADT*/
```

```
int pos=-1 ;
```

```
/* pushes item on the stack */
```

```
void push (void *data )
```

```
{
```

```
if ( pos == MAX - 1 )
```

```
    printf ( "\nStack is full" );
```

```
else
```

```
{
```

```
    pos++ ;
```

```
    stack[ pos ] = data ;
```

```
}
```

```
}
```

```
/* pops off the items from the stack */
```

```
int pop(void **data)
```

```
{
```

```
if ( pos == -1 )
```

```
{
```

```
    printf ( "\nStack is empty" );
```

```
    return 0 ;
```

```
}
```

```
else
```

```
{
```

```
    *data = stack[ pos ] ;
```

```
    pos-- ;
```

```
    return 1 ;
```

```
}
```

```
}
```

```
void main( )
{
int choice;
int *data, **dataOut;
int n;

dataOut=(int**)malloc(sizeof(int*));

pos = -1 ; /* stack is empty */
do
{
printf("\n\n1. Push Data into the Stack\n");
printf("2. Pop Data from the Stack\n");
printf("3. Exit\n");
printf("Feed in your choice: ");
scanf("%d",&choice);

if (choice==1)
{
printf("Feed in the data to push: ");
data=(int *)malloc(sizeof(int));
scanf("%d", data);
push(data);
}

if (choice==2)
{
n = pop(dataOut) ;
if (n==1) printf( "\nitem popped out is : %d", **dataOut ) ;
}
}while (choice!=3);
}
```