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LAB TASK # 8

1. Create one PROCEDURE & MACRO. Give reason how this helps you in your code writing.

Code:

```

;program which use macro to print string and procedure to print string in nextline
dosseg
print macro p1
mov dx,offset p1
mov ah,9
int 21h
endm
.model small
.stack 100h
.data
str1 db 'Top 10 Famous places in Karachi city$'
str2 db ' 1. Mazar-e-Quaid$'
str3 db ' 2. Frere Hall$'
str4 db ' 3. Mohatta Palace Museum$'
str5 db ' 4. Port Grand Karachi$'
str6 db ' 5. Pakistan Air Force Museum$'
str7 db ' 6. Empress Market$'
str8 db ' 7. Masjid-e-Tooba$'
str9 db ' 8. Do Darya$'
str10 db ' 9. National Museum Of Pakistan$'
str11 db '10. Pakistan Maritime Museum$'
.code
main proc
mov ax,@data
mov ds,ax

print str1           ;to print string we need a 3 lines block of code
call nextline        ;to print in nextline we need a 6 line block of code
print str2
call nextline
print str3
call nextline
print str4
call nextline
print str5
call nextline
print str6
call nextline
print str7
call nextline
print str8
call nextline
print str9
call nextline

```

```
print str10
call nextline
print str11

mov ah,4ch
int 21h
main endp
nextline proc
mov dx,10
mov ah,2
int 21h
mov dx,13
mov ah,2
int 21h
ret
nextline endp
end main
```

F1=Help

Line:62

Col:1

Output:

DOSBox 0.74, Cpu speed: 3000 cycles, Frameskip 0, Program: DOSBOX

51666 + 464878 Bytes symbol space free

0 Warning Errors
0 Severe Errors

C:\>link pro1.obj;

Microsoft (R) Overlay Linker Version 3.60
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C:\>pro1.exe

Top 10 Famous places in Karachi city

1. Mazar-e-Quaid
2. Frere Hall
3. Mohatta Palace Museum
4. Port Grand Karachi
5. Pakistan Air Force Museum
6. Empress Market
7. Masjid-e-Tooba
8. Do Darya
9. National Museum Of Pakistan
10. Pakistan Maritime Museum

C:\>_

Reason:

The use of macro and procedure helps a lot in my recent code.

In the above code I tried to print 11 strings at a time and for this purpose I need to rewrite the code many times

```
Mov dx, offset str1
```

```
Mov ah, 2
```

```
Int 21h
```

So instead of this code I use macro and declare it just one time before my code. And with

The help of macro I didn't had to rewrite

Block of code 11 times which makes the code easier and also helps in detecting the

Error and make my code minimal.

And for printing each string on a next line we need to write this block of code which makes our program

```
Mov dx, 10
```

```
Mov ah, 2
```

```
Int 21h
```

```
Mov dx, 13
```

```
Mov ah, 2
```

```
Int 21h
```

Complex so for this purpose we use procedure and instead of this code we just declare

This one time and use it multiple times in our code. This helps me to save time

And reduced the chances of error.