20F-0292_BCS 4D_COAL LAB 8

Saad Abdur Razzaq

TASK NO 1:

```
INCLUDE irvine32.inc
sumArray PROTO, address: PTR DWORD, arrSize: DWORD

.data
array dword 2,4,6,8
str1 db "The Sum of array is : ",0

.code
main PROC

INVOKE sumArray, ADDR array, LENGTHOF array

exit
main ENDP


sumArray PROC USES eax ecx esi, address: PTR DWORD, arrSize: DWORD
mov ecx, arrSize
mov esi, address
mov ebx, 0

l1:
      mov eax, [esi]
      add ebx, eax
      mov eax, ebx
      add esi, 4
      loop l1

      mov edx, OFFSET str1
      call writestring
      call WriteDec
      call Crlf
      call waitmsg


ret
sumArray ENDP
END main
```
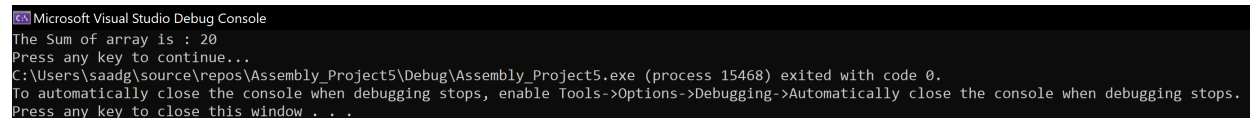
OUTPUT:


```
Microsoft Visual Studio Debug Console
The Sum of array is : 20
Press any key to continue...
C:\Users\saadg\source\repos\Assembly_Project5\Debug\Assembly_Project5.exe (process 15468) exited with code 0.
To automatically close the console when debugging stops, enable Tools->Options->Debugging->Automatically close the console when debugging stops.
Press any key to close this window . . .
```

TASK NO 2:

```
INCLUDE irvine32.inc
DispArray PROTO, address: PTR DWORD, arrSize: DWORD

.data
array dword 3,4,8,20,25,30
str1 db "Array [",0
str2 db "] =>",0

.code
main PROC

INVOKE DispArray, ADDR array, LENGTHOF array

exit
main ENDP


DispArray PROC USES eax ecx esi, address: PTR DWORD, arrSize: DWORD
mov ecx, arrSize
mov esi, address
mov ebx, 0

l1:
      mov edx, OFFSET str1
      call writestring
      mov eax, ebx
      call writedec
      add ebx, 1
      mov edx, OFFSET str2
      call writestring
      mov eax, [esi]
      call writedec
      call crlf
      add esi, 4
      loop l1
      call Crlf
      call waitmsg

ret
DispArray ENDP
END main
```

OUTPUT:

```
Array [0] =>3
Array [1] =>4
Array [2] =>8
Array [3] =>20
Array [4] =>25
Array [5] =>30

Press any key to continue...
C:\Users\saadg\source\repos\Assembly_Project5\Debug\Assembly_Project5.exe (process 22960) exited with code 0.
To automatically close the console when debugging stops, enable Tools->Options->Debugging->Automatically close the console when debugging stops.
Press any key to close this window . . .
```