Name: **M**uhammad **S**herjeel **A**khtar

Roll **N**o: 20P-0101

Subject: **C**omputer **O**rganization **A**nd **A**ssembly **L**anguage

Lab **T**ask **N**o: 10

Submitted **T**o **R**espected **S**ir: **Khurram Shahzad**

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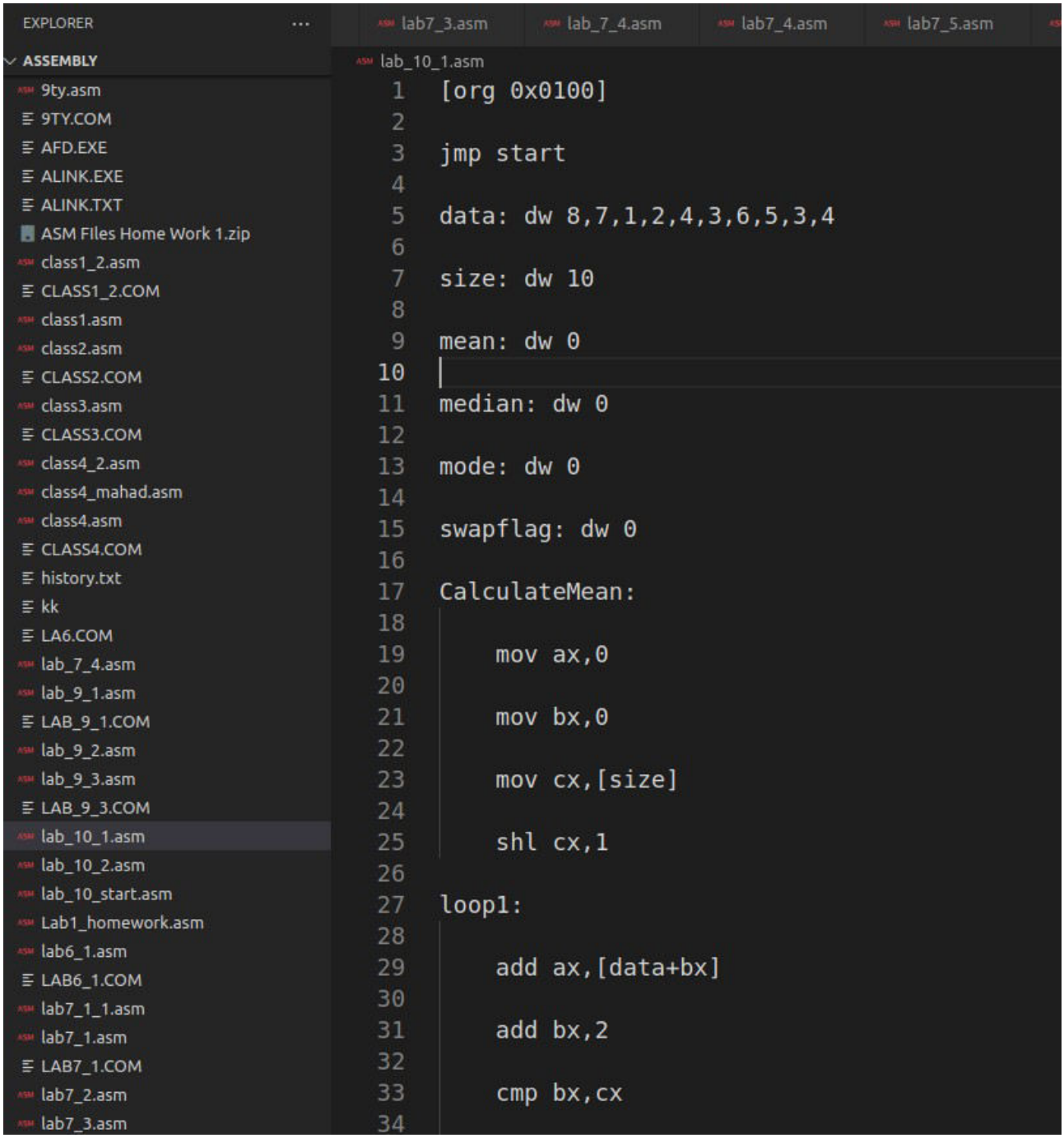
EXPLORER
ASSEMBLY
9ty.asm
9TY.COM
AFD.EXE
ALINK.EXE
ALINK.TXT
ASM FIles Home Work 1.zip
class1_2.asm
CLASS1_2.COM
class1.asm
class2.asm
CLASS2.COM
class3.asm
CLASS3.COM
class4_2.asm
class4_mahad.asm
class4.asm
CLASS4.COM
history.txt
kk
LA6.COM
lab_7_4.asm
lab_9_1.asm
LAB_9_1.COM
lab_9_2.asm
lab_9_3.asm
LAB_9_3.COM
lab_10_1.asm
lab_10_2.asm
lab_10_start.asm
Lab1_homework.asm
lab6_1.asm
LAB6_1.COM
lab7_1_1.asm
lab7_1.asm
LAB7_1.COM
lab7_2.asm
lab7_3.asm
lab7_3.asm
lab_7_4.asm
lab7_4.asm
lab7_5.asm
lab_10_1.asm
[org 0x0100]
jmp start
data: dw 8,7,1,2,4,3,6,5,3,4
size: dw 10
mean: dw 0
median: dw 0
mode: dw 0
swapflag: dw 0
CalculateMean:
mov ax,0
mov bx,0
mov cx,[size]
shl cx,1
loop1:
add ax,[data+bx]
add bx,2
cmp bx,cx

.

```
25      shl cx,1
26
27  loop1:
28
29      add ax,[data+bx]
30
31      add bx,2
32
33      cmp bx,cx
34
35      jne loop1
36
37      div [size]
38
39      mov [mean],ax
40
41      ret
42
43  CalculateMedian:
44
45      mov ax,0
46
47      mov bx,0
48
49      call bubblesort
50
51      mov cx,[size]
52
53      shr cx
54
55      shl cx
56
57      cmp cx,[size]
```

```
54
55      shl cx
56
57      cmp cx,[size]
58
59      je CalculateMinMean
60
61  CalculateMode:
62
63      call bubblesort
64
65      mov bx, 0
66
67  l3:
68
69      add bx ,2
70
71  l1:
72
73      mov ax ,[data+bx]
74
75  l2:
76
77      cmp ax ,[data+bx +2]
78
79      je mode
80
81      add bx,2
82
83      cmp bx , 20
84
```

```
82
83      cmp bx , 20
84
85      je l3
86
87      jne l2
88
89  mode:
90
91      add cx , 1
92
93      cmp cx,7
94
95      jnz l1
96
97  exit:
98
99  mov [mode] , cx
100
101 ret
102
103 CalculateMinMean:
104
105     mov ax,[data+cx]
106
107     add ax,[data+cx-2]
```

```
 96
 97  exit:
 98
 99  mov [mode] , cx
100
101  ret
102
103  CalculateMinMean:
104
105      mov ax,[data+cx]
106
107      add ax,[data+cx-2]
108
109      shr ax,1
110
111      mov [mediana],ax
112
113  start:
114
115      call CalculateMean
116
117      call CalculateMedian
118
119      call CalculateMode
120
121      mov ax, 0x4c00
122
123      int 0x21
124
```