# CS 410 Project One Proficiency Test Template

## Explain the functionality of the blocks of assembly code.

### **“main” function”**

Assembly Code Block

0000000000000000 <main>:

0: 55 push %rbp

1: 48 89 e5 mov %rsp,%rbp

4: 48 8d 35 00 00 00 00 lea 0x0(%rip),%rsi # b <main+0xb>

b: 48 8d 3d 00 00 00 00 lea 0x0(%rip),%rdi # 12 <main+0x12>

12: e8 00 00 00 00 call 17 <main+0x17>

17: e8 00 00 00 00 call 1c <main+0x1c>

1c: 89 05 00 00 00 00 mov %eax,0x0(%rip) # 22 <main+0x22>

22: 8b 05 00 00 00 00 mov 0x0(%rip),%eax # 28 <main+0x28>

28: 83 f8 01 cmp $0x1,%eax

2b: 74 13 je 40 <main+0x40>

2d: 48 8d 35 00 00 00 00 lea 0x0(%rip),%rsi # 34 <main+0x34>

34: 48 8d 3d 00 00 00 00 lea 0x0(%rip),%rdi # 3b <main+0x3b>

3b: e8 00 00 00 00 call 40 <main+0x40>

40: 8b 05 00 00 00 00 mov 0x0(%rip),%eax # 46 <main+0x46>

46: 83 f8 01 cmp $0x1,%eax

49: 74 02 je 4d <main+0x4d>

4b: eb ca jmp 17 <main+0x17>

4d: 48 8d 35 00 00 00 00 lea 0x0(%rip),%rsi # 54 <main+0x54>

54: 48 8d 3d 00 00 00 00 lea 0x0(%rip),%rdi # 5b <main+0x5b>

5b: e8 00 00 00 00 call 60 <main+0x60>

60: 48 8d 35 00 00 00 00 lea 0x0(%rip),%rsi # 67 <main+0x67>

67: 48 8d 3d 00 00 00 00 lea 0x0(%rip),%rdi # 6e <main+0x6e>

6e: e8 00 00 00 00 call 73 <main+0x73>

73: 48 8d 35 00 00 00 00 lea 0x0(%rip),%rsi # 7a <main+0x7a>

7a: 48 8d 3d 00 00 00 00 lea 0x0(%rip),%rdi # 81 <main+0x81>

81: e8 00 00 00 00 call 86 <main+0x86>

86: 48 8d 35 00 00 00 00 lea 0x0(%rip),%rsi # 8d <main+0x8d>

8d: 48 8d 3d 00 00 00 00 lea 0x0(%rip),%rdi # 94 <main+0x94>

94: e8 00 00 00 00 call 99 <main+0x99>

99: 48 8d 35 00 00 00 00 lea 0x0(%rip),%rsi # a0 <main+0xa0>

a0: 48 8d 3d 00 00 00 00 lea 0x0(%rip),%rdi # a7 <main+0xa7>

a7: e8 00 00 00 00 call ac <main+0xac>

ac: 48 8d 35 00 00 00 00 lea 0x0(%rip),%rsi # b3 <main+0xb3>

b3: 48 8d 3d 00 00 00 00 lea 0x0(%rip),%rdi # ba <main+0xba>

ba: e8 00 00 00 00 call bf <main+0xbf>

bf: 48 89 c2 mov %rax,%rdx

c2: 8b 05 00 00 00 00 mov 0x0(%rip),%eax # c8 <main+0xc8>

c8: 89 c6 mov %eax,%esi

ca: 48 89 d7 mov %rdx,%rdi

cd: e8 00 00 00 00 call d2 <main+0xd2>

d2: 48 89 c2 mov %rax,%rdx

d5: 48 8b 05 00 00 00 00 mov 0x0(%rip),%rax # dc <main+0xdc>

dc: 48 89 c6 mov %rax,%rsi

df: 48 89 d7 mov %rdx,%rdi

e2: e8 00 00 00 00 call e7 <main+0xe7>

e7: 8b 05 00 00 00 00 mov 0x0(%rip),%eax # ed <main+0xed>

ed: 83 f8 01 cmp $0x1,%eax

f0: 75 07 jne f9 <main+0xf9>

f2: e8 00 00 00 00 call f7 <main+0xf7>

f7: eb 10 jmp 109 <main+0x109>

f9: 8b 05 00 00 00 00 mov 0x0(%rip),%eax # ff <main+0xff>

ff: 83 f8 02 cmp $0x2,%eax

102: 75 05 jne 109 <main+0x109>

104: e8 00 00 00 00 call 109 <main+0x109>

109: 8b 05 00 00 00 00 mov 0x0(%rip),%eax # 10f <main+0x10f>

10f: 83 f8 03 cmp $0x3,%eax

112: 74 05 je 119 <main+0x119>

114: e9 34 ff ff ff jmp 4d <main+0x4d>

119: b8 00 00 00 00 mov $0x0,%eax

11e: 5d pop %rbp

11f: c3 ret

Explanation of Functionality

### **ChangeCustomerChoice function**

Assembly Code Block

000000000000042d <\_Z20ChangeCustomerChoicev>:

42d: 55 push %rbp

42e: 48 89 e5 mov %rsp,%rbp

431: 48 8d 35 00 00 00 00 lea 0x0(%rip),%rsi # 438 <\_Z20ChangeCustomerChoicev+0xb>

438: 48 8d 3d 00 00 00 00 lea 0x0(%rip),%rdi # 43f <\_Z20ChangeCustomerChoicev+0x12>

43f: e8 00 00 00 00 call 444 <\_Z20ChangeCustomerChoicev+0x17>

444: 48 8d 35 00 00 00 00 lea 0x0(%rip),%rsi # 44b <\_Z20ChangeCustomerChoicev+0x1e>

44b: 48 8d 3d 00 00 00 00 lea 0x0(%rip),%rdi # 452 <\_Z20ChangeCustomerChoicev+0x25>

452: e8 00 00 00 00 call 457 <\_Z20ChangeCustomerChoicev+0x2a>

457: 48 8d 35 00 00 00 00 lea 0x0(%rip),%rsi # 45e <\_Z20ChangeCustomerChoicev+0x31>

45e: 48 8d 3d 00 00 00 00 lea 0x0(%rip),%rdi # 465 <\_Z20ChangeCustomerChoicev+0x38>

465: e8 00 00 00 00 call 46a <\_Z20ChangeCustomerChoicev+0x3d>

46a: 48 8d 35 00 00 00 00 lea 0x0(%rip),%rsi # 471 <\_Z20ChangeCustomerChoicev+0x44>

471: 48 8d 3d 00 00 00 00 lea 0x0(%rip),%rdi # 478 <\_Z20ChangeCustomerChoicev+0x4b>

478: e8 00 00 00 00 call 47d <\_Z20ChangeCustomerChoicev+0x50>

47d: 8b 05 00 00 00 00 mov 0x0(%rip),%eax # 483 <\_Z20ChangeCustomerChoicev+0x56>

483: 83 f8 01 cmp $0x1,%eax

486: 75 0e jne 496 <\_Z20ChangeCustomerChoicev+0x69>

488: 8b 05 00 00 00 00 mov 0x0(%rip),%eax # 48e <\_Z20ChangeCustomerChoicev+0x61>

48e: 89 05 00 00 00 00 mov %eax,0x0(%rip) # 494 <\_Z20ChangeCustomerChoicev+0x67>

494: eb 62 jmp 4f8 <\_Z20ChangeCustomerChoicev+0xcb>

496: 8b 05 00 00 00 00 mov 0x0(%rip),%eax # 49c <\_Z20ChangeCustomerChoicev+0x6f>

49c: 83 f8 02 cmp $0x2,%eax

49f: 75 0e jne 4af <\_Z20ChangeCustomerChoicev+0x82>

4a1: 8b 05 00 00 00 00 mov 0x0(%rip),%eax # 4a7 <\_Z20ChangeCustomerChoicev+0x7a>

4a7: 89 05 00 00 00 00 mov %eax,0x0(%rip) # 4ad <\_Z20ChangeCustomerChoicev+0x80>

4ad: eb 49 jmp 4f8 <\_Z20ChangeCustomerChoicev+0xcb>

4af: 8b 05 00 00 00 00 mov 0x0(%rip),%eax # 4b5 <\_Z20ChangeCustomerChoicev+0x88>

4b5: 83 f8 03 cmp $0x3,%eax

4b8: 75 0e jne 4c8 <\_Z20ChangeCustomerChoicev+0x9b>

4ba: 8b 05 00 00 00 00 mov 0x0(%rip),%eax # 4c0 <\_Z20ChangeCustomerChoicev+0x93>

4c0: 89 05 00 00 00 00 mov %eax,0x0(%rip) # 4c6 <\_Z20ChangeCustomerChoicev+0x99>

4c6: eb 30 jmp 4f8 <\_Z20ChangeCustomerChoicev+0xcb>

4c8: 8b 05 00 00 00 00 mov 0x0(%rip),%eax # 4ce <\_Z20ChangeCustomerChoicev+0xa1>

4ce: 83 f8 04 cmp $0x4,%eax

4d1: 75 0e jne 4e1 <\_Z20ChangeCustomerChoicev+0xb4>

4d3: 8b 05 00 00 00 00 mov 0x0(%rip),%eax # 4d9 <\_Z20ChangeCustomerChoicev+0xac>

4d9: 89 05 00 00 00 00 mov %eax,0x0(%rip) # 4df <\_Z20ChangeCustomerChoicev+0xb2>

4df: eb 17 jmp 4f8 <\_Z20ChangeCustomerChoicev+0xcb>

4e1: 8b 05 00 00 00 00 mov 0x0(%rip),%eax # 4e7 <\_Z20ChangeCustomerChoicev+0xba>

4e7: 83 f8 05 cmp $0x5,%eax

4ea: 75 0c jne 4f8 <\_Z20ChangeCustomerChoicev+0xcb>

4ec: 8b 05 00 00 00 00 mov 0x0(%rip),%eax # 4f2 <\_Z20ChangeCustomerChoicev+0xc5>

4f2: 89 05 00 00 00 00 mov %eax,0x0(%rip) # 4f8 <\_Z20ChangeCustomerChoicev+0xcb>

4f8: 90 nop

4f9: 5d pop %rbp

4fa: c3 ret

Explanation of Functionality

### **CheckUserPermissonAccess Function**

Assembly Code Block

0000000000000120 <\_Z25CheckUserPermissionAccessv>:

120: 55 push %rbp

121: 48 89 e5 mov %rsp,%rbp

124: 53 push %rbx

125: 48 83 ec 48 sub $0x48,%rsp

129: 64 48 8b 04 25 28 00 mov %fs:0x28,%rax

130: 00 00

132: 48 89 45 e8 mov %rax,-0x18(%rbp)

136: 31 c0 xor %eax,%eax

138: 48 8d 45 bb lea -0x45(%rbp),%rax

13c: 48 89 c7 mov %rax,%rdi

13f: e8 00 00 00 00 call 144 <\_Z25CheckUserPermissionAccessv+0x24>

144: 48 8d 55 bb lea -0x45(%rbp),%rdx

148: 48 8d 45 c0 lea -0x40(%rbp),%rax

14c: 48 8d 35 00 00 00 00 lea 0x0(%rip),%rsi # 153 <\_Z25CheckUserPermissionAccessv+0x33>

153: 48 89 c7 mov %rax,%rdi

156: e8 00 00 00 00 call 15b <\_Z25CheckUserPermissionAccessv+0x3b>

15b: 48 8d 45 bb lea -0x45(%rbp),%rax

15f: 48 89 c7 mov %rax,%rdi

162: e8 00 00 00 00 call 167 <\_Z25CheckUserPermissionAccessv+0x47>

167: c7 45 bc 00 00 00 00 movl $0x0,-0x44(%rbp)

16e: 48 8d 35 00 00 00 00 lea 0x0(%rip),%rsi # 175 <\_Z25CheckUserPermissionAccessv+0x55>

175: 48 8d 3d 00 00 00 00 lea 0x0(%rip),%rdi # 17c <\_Z25CheckUserPermissionAccessv+0x5c>

17c: e8 00 00 00 00 call 181 <\_Z25CheckUserPermissionAccessv+0x61>

181: 48 8d 35 00 00 00 00 lea 0x0(%rip),%rsi # 188 <\_Z25CheckUserPermissionAccessv+0x68>

188: 48 8d 3d 00 00 00 00 lea 0x0(%rip),%rdi # 18f <\_Z25CheckUserPermissionAccessv+0x6f>

18f: e8 00 00 00 00 call 194 <\_Z25CheckUserPermissionAccessv+0x74>

194: 48 8d 35 00 00 00 00 lea 0x0(%rip),%rsi # 19b <\_Z25CheckUserPermissionAccessv+0x7b>

19b: 48 8d 3d 00 00 00 00 lea 0x0(%rip),%rdi # 1a2 <\_Z25CheckUserPermissionAccessv+0x82>

1a2: e8 00 00 00 00 call 1a7 <\_Z25CheckUserPermissionAccessv+0x87>

1a7: 48 8d 45 c0 lea -0x40(%rbp),%rax

1ab: 48 89 c6 mov %rax,%rsi

1ae: 48 8d 3d 00 00 00 00 lea 0x0(%rip),%rdi # 1b5 <\_Z25CheckUserPermissionAccessv+0x95>

1b5: e8 00 00 00 00 call 1ba <\_Z25CheckUserPermissionAccessv+0x9a>

1ba: 48 8d 45 c0 lea -0x40(%rbp),%rax

1be: 48 8d 35 00 00 00 00 lea 0x0(%rip),%rsi # 1c5 <\_Z25CheckUserPermissionAccessv+0xa5>

1c5: 48 89 c7 mov %rax,%rdi

1c8: e8 00 00 00 00 call 1cd <\_Z25CheckUserPermissionAccessv+0xad>

1cd: 89 45 bc mov %eax,-0x44(%rbp)

1d0: 83 7d bc 00 cmpl $0x0,-0x44(%rbp)

1d4: 75 07 jne 1dd <\_Z25CheckUserPermissionAccessv+0xbd>

1d6: bb 01 00 00 00 mov $0x1,%ebx

1db: eb 05 jmp 1e2 <\_Z25CheckUserPermissionAccessv+0xc2>

1dd: bb 02 00 00 00 mov $0x2,%ebx

1e2: 48 8d 45 c0 lea -0x40(%rbp),%rax

1e6: 48 89 c7 mov %rax,%rdi

1e9: e8 00 00 00 00 call 1ee <\_Z25CheckUserPermissionAccessv+0xce>

1ee: 89 d8 mov %ebx,%eax

1f0: 48 8b 4d e8 mov -0x18(%rbp),%rcx

1f4: 64 48 33 0c 25 28 00 xor %fs:0x28,%rcx

1fb: 00 00

1fd: 74 3b je 23a <\_Z25CheckUserPermissionAccessv+0x11a>

1ff: eb 34 jmp 235 <\_Z25CheckUserPermissionAccessv+0x115>

201: 48 89 c3 mov %rax,%rbx

204: 48 8d 45 bb lea -0x45(%rbp),%rax

208: 48 89 c7 mov %rax,%rdi

20b: e8 00 00 00 00 call 210 <\_Z25CheckUserPermissionAccessv+0xf0>

210: 48 89 d8 mov %rbx,%rax

213: 48 89 c7 mov %rax,%rdi

216: e8 00 00 00 00 call 21b <\_Z25CheckUserPermissionAccessv+0xfb>

21b: 48 89 c3 mov %rax,%rbx

21e: 48 8d 45 c0 lea -0x40(%rbp),%rax

222: 48 89 c7 mov %rax,%rdi

225: e8 00 00 00 00 call 22a <\_Z25CheckUserPermissionAccessv+0x10a>

22a: 48 89 d8 mov %rbx,%rax

22d: 48 89 c7 mov %rax,%rdi

230: e8 00 00 00 00 call 235 <\_Z25CheckUserPermissionAccessv+0x115>

235: e8 00 00 00 00 call 23a <\_Z25CheckUserPermissionAccessv+0x11a>

23a: 48 83 c4 48 add $0x48,%rsp

23e: 5b pop %rbx

23f: 5d pop %rbp

240: c3 ret

Explanation of Functionality

### **DisplayInfo Function**

Assembly Code Block

0000000000000241 <\_Z11DisplayInfov>:

241: 55 push %rbp

242: 48 89 e5 mov %rsp,%rbp

245: 48 8d 35 00 00 00 00 lea 0x0(%rip),%rsi # 24c <\_Z11DisplayInfov+0xb>

24c: 48 8d 3d 00 00 00 00 lea 0x0(%rip),%rdi # 253 <\_Z11DisplayInfov+0x12>

253: e8 00 00 00 00 call 258 <\_Z11DisplayInfov+0x17>

258: 48 89 c2 mov %rax,%rdx

25b: 48 8b 05 00 00 00 00 mov 0x0(%rip),%rax # 262 <\_Z11DisplayInfov+0x21>

262: 48 89 c6 mov %rax,%rsi

265: 48 89 d7 mov %rdx,%rdi

268: e8 00 00 00 00 call 26d <\_Z11DisplayInfov+0x2c>

26d: 48 8d 35 00 00 00 00 lea 0x0(%rip),%rsi # 274 <\_Z11DisplayInfov+0x33>

274: 48 8d 3d 00 00 00 00 lea 0x0(%rip),%rdi # 27b <\_Z11DisplayInfov+0x3a>

27b: e8 00 00 00 00 call 280 <\_Z11DisplayInfov+0x3f>

280: 48 8d 35 00 00 00 00 lea 0x0(%rip),%rsi # 287 <\_Z11DisplayInfov+0x46>

287: 48 89 c7 mov %rax,%rdi

28a: e8 00 00 00 00 call 28f <\_Z11DisplayInfov+0x4e>

28f: 48 8d 35 00 00 00 00 lea 0x0(%rip),%rsi # 296 <\_Z11DisplayInfov+0x55>

296: 48 89 c7 mov %rax,%rdi

299: e8 00 00 00 00 call 29e <\_Z11DisplayInfov+0x5d>

29e: 48 89 c2 mov %rax,%rdx

2a1: 8b 05 00 00 00 00 mov 0x0(%rip),%eax # 2a7 <\_Z11DisplayInfov+0x66>

2a7: 89 c6 mov %eax,%esi

2a9: 48 89 d7 mov %rdx,%rdi

2ac: e8 00 00 00 00 call 2b1 <\_Z11DisplayInfov+0x70>

2b1: 48 89 c2 mov %rax,%rdx

2b4: 48 8b 05 00 00 00 00 mov 0x0(%rip),%rax # 2bb <\_Z11DisplayInfov+0x7a>

2bb: 48 89 c6 mov %rax,%rsi

2be: 48 89 d7 mov %rdx,%rdi

2c1: e8 00 00 00 00 call 2c6 <\_Z11DisplayInfov+0x85>

2c6: 48 8d 35 00 00 00 00 lea 0x0(%rip),%rsi # 2cd <\_Z11DisplayInfov+0x8c>

2cd: 48 8d 3d 00 00 00 00 lea 0x0(%rip),%rdi # 2d4 <\_Z11DisplayInfov+0x93>

2d4: e8 00 00 00 00 call 2d9 <\_Z11DisplayInfov+0x98>

2d9: 48 8d 35 00 00 00 00 lea 0x0(%rip),%rsi # 2e0 <\_Z11DisplayInfov+0x9f>

2e0: 48 89 c7 mov %rax,%rdi

2e3: e8 00 00 00 00 call 2e8 <\_Z11DisplayInfov+0xa7>

2e8: 48 8d 35 00 00 00 00 lea 0x0(%rip),%rsi # 2ef <\_Z11DisplayInfov+0xae>

2ef: 48 89 c7 mov %rax,%rdi

2f2: e8 00 00 00 00 call 2f7 <\_Z11DisplayInfov+0xb6>

2f7: 48 89 c2 mov %rax,%rdx

2fa: 8b 05 00 00 00 00 mov 0x0(%rip),%eax # 300 <\_Z11DisplayInfov+0xbf>

300: 89 c6 mov %eax,%esi

302: 48 89 d7 mov %rdx,%rdi

305: e8 00 00 00 00 call 30a <\_Z11DisplayInfov+0xc9>

30a: 48 89 c2 mov %rax,%rdx

30d: 48 8b 05 00 00 00 00 mov 0x0(%rip),%rax # 314 <\_Z11DisplayInfov+0xd3>

314: 48 89 c6 mov %rax,%rsi

317: 48 89 d7 mov %rdx,%rdi

31a: e8 00 00 00 00 call 31f <\_Z11DisplayInfov+0xde>

31f: 48 8d 35 00 00 00 00 lea 0x0(%rip),%rsi # 326 <\_Z11DisplayInfov+0xe5>

326: 48 8d 3d 00 00 00 00 lea 0x0(%rip),%rdi # 32d <\_Z11DisplayInfov+0xec>

32d: e8 00 00 00 00 call 332 <\_Z11DisplayInfov+0xf1>

332: 48 8d 35 00 00 00 00 lea 0x0(%rip),%rsi # 339 <\_Z11DisplayInfov+0xf8>

339: 48 89 c7 mov %rax,%rdi

33c: e8 00 00 00 00 call 341 <\_Z11DisplayInfov+0x100>

341: 48 8d 35 00 00 00 00 lea 0x0(%rip),%rsi # 348 <\_Z11DisplayInfov+0x107>

348: 48 89 c7 mov %rax,%rdi

34b: e8 00 00 00 00 call 350 <\_Z11DisplayInfov+0x10f>

350: 48 89 c2 mov %rax,%rdx

353: 8b 05 00 00 00 00 mov 0x0(%rip),%eax # 359 <\_Z11DisplayInfov+0x118>

359: 89 c6 mov %eax,%esi

35b: 48 89 d7 mov %rdx,%rdi

35e: e8 00 00 00 00 call 363 <\_Z11DisplayInfov+0x122>

363: 48 89 c2 mov %rax,%rdx

366: 48 8b 05 00 00 00 00 mov 0x0(%rip),%rax # 36d <\_Z11DisplayInfov+0x12c>

36d: 48 89 c6 mov %rax,%rsi

370: 48 89 d7 mov %rdx,%rdi

373: e8 00 00 00 00 call 378 <\_Z11DisplayInfov+0x137>

378: 48 8d 35 00 00 00 00 lea 0x0(%rip),%rsi # 37f <\_Z11DisplayInfov+0x13e>

37f: 48 8d 3d 00 00 00 00 lea 0x0(%rip),%rdi # 386 <\_Z11DisplayInfov+0x145>

386: e8 00 00 00 00 call 38b <\_Z11DisplayInfov+0x14a>

38b: 48 8d 35 00 00 00 00 lea 0x0(%rip),%rsi # 392 <\_Z11DisplayInfov+0x151>

392: 48 89 c7 mov %rax,%rdi

395: e8 00 00 00 00 call 39a <\_Z11DisplayInfov+0x159>

39a: 48 8d 35 00 00 00 00 lea 0x0(%rip),%rsi # 3a1 <\_Z11DisplayInfov+0x160>

3a1: 48 89 c7 mov %rax,%rdi

3a4: e8 00 00 00 00 call 3a9 <\_Z11DisplayInfov+0x168>

3a9: 48 89 c2 mov %rax,%rdx

3ac: 8b 05 00 00 00 00 mov 0x0(%rip),%eax # 3b2 <\_Z11DisplayInfov+0x171>

3b2: 89 c6 mov %eax,%esi

3b4: 48 89 d7 mov %rdx,%rdi

3b7: e8 00 00 00 00 call 3bc <\_Z11DisplayInfov+0x17b>

3bc: 48 89 c2 mov %rax,%rdx

3bf: 48 8b 05 00 00 00 00 mov 0x0(%rip),%rax # 3c6 <\_Z11DisplayInfov+0x185>

3c6: 48 89 c6 mov %rax,%rsi

3c9: 48 89 d7 mov %rdx,%rdi

3cc: e8 00 00 00 00 call 3d1 <\_Z11DisplayInfov+0x190>

3d1: 48 8d 35 00 00 00 00 lea 0x0(%rip),%rsi # 3d8 <\_Z11DisplayInfov+0x197>

3d8: 48 8d 3d 00 00 00 00 lea 0x0(%rip),%rdi # 3df <\_Z11DisplayInfov+0x19e>

3df: e8 00 00 00 00 call 3e4 <\_Z11DisplayInfov+0x1a3>

3e4: 48 8d 35 00 00 00 00 lea 0x0(%rip),%rsi # 3eb <\_Z11DisplayInfov+0x1aa>

3eb: 48 89 c7 mov %rax,%rdi

3ee: e8 00 00 00 00 call 3f3 <\_Z11DisplayInfov+0x1b2>

3f3: 48 8d 35 00 00 00 00 lea 0x0(%rip),%rsi # 3fa <\_Z11DisplayInfov+0x1b9>

3fa: 48 89 c7 mov %rax,%rdi

3fd: e8 00 00 00 00 call 402 <\_Z11DisplayInfov+0x1c1>

402: 48 89 c2 mov %rax,%rdx

405: 8b 05 00 00 00 00 mov 0x0(%rip),%eax # 40b <\_Z11DisplayInfov+0x1ca>

40b: 89 c6 mov %eax,%esi

40d: 48 89 d7 mov %rdx,%rdi

410: e8 00 00 00 00 call 415 <\_Z11DisplayInfov+0x1d4>

415: 48 89 c2 mov %rax,%rdx

418: 48 8b 05 00 00 00 00 mov 0x0(%rip),%rax # 41f <\_Z11DisplayInfov+0x1de>

41f: 48 89 c6 mov %rax,%rsi

422: 48 89 d7 mov %rdx,%rdi

425: e8 00 00 00 00 call 42a <\_Z11DisplayInfov+0x1e9>

42a: 90 nop

42b: 5d pop %rbp

42c: c3 ret

Explanation of Functionality