

Joseph Godinez

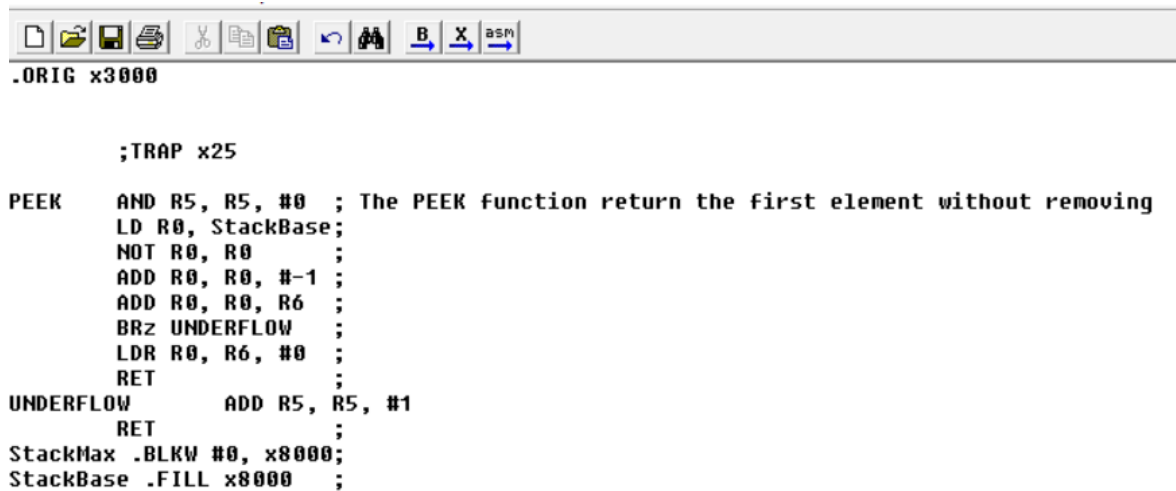
Professor Oscar Ho

Computer Science 240-20

November 24, 2021

Problem Set: Data Structures

1. Screenshot



The screenshot shows an assembly code editor with a toolbar at the top containing icons for file operations (new, open, save, print), editing (undo, redo, cut, copy, paste), and execution (run, step over, step into, step out). Below the toolbar, the assembly code is displayed as follows:

```
.ORIG x3000

;TRAP x25

PEEK    AND R5, R5, #0 ; The PEEK function return the first element without removing
        LD R0, StackBase;
        NOT R0, R0
        ADD R0, R0, #-1 ;
        ADD R0, R0, R6 ;
        BRz UNDERFLOW ;
        LDR R0, R6, #0 ;
        RET
        ;
UNDERFLOW    ADD R5, R5, #1
        RET
        ;
StackMax .BLKW #0, x8000;
StackBase .FILL x8000 ;
```

2.

- The container only has A and F after PUSH F.
- The container has the most elements after we PUSH J
- A, F, and M