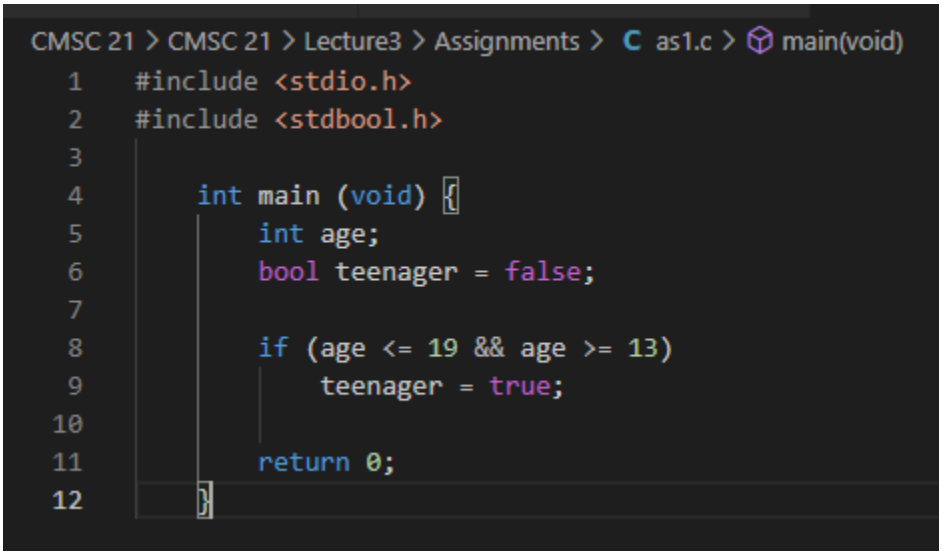
Selection Statements
Lecture 3 Assignments

1. The following `if` statement is unnecessarily complicated. Simplify it as much as possible. (*Hint:* The entire statement can be replaced by a single assignment.)

```
if (age >= 13)
        if (age <= 19)
                teenager = true;
        else
                teenager = false;
else if (age < 13)
        teenager = false;
```



2. Write a C program that does the following:
Enter a two-digit number: 25
Number entered in words: twenty-five
Hint:

- • Break the number into two digits.
- • Note: `11` and `19` require special treatment.

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```c
#include <stdio.h>

int main(void) {

    int tens, ones;
    char number;

    start:
    printf("Enter a two-digit number: ");
    scanf("%1d%1d", &tens, &ones);

        switch (tens)
            {
                //for numbers from 10-19
                case 1:
                    switch (ones)
                    {
                        case 0:
                            printf("ten");
                            return 0;
                        case 1:
                            printf("eleven");
                            return 0;
                        case 2:
                            printf("twelve");
                            return 0;
                        case 3:
                            printf("thirteen");
                            return 0;
                        case 4:
                            printf("fourteen");
                            return 0;
                        case 5:
                            printf("fifteen");
                            return 0;
                        case 6:
                            printf("sixteen");
                            return 0;
                        case 7:
                            printf("seventeen");
                            return 0;
                        case 8:
                            printf("eigthteen");
                            return 0;
                        case 9:
                            printf("nineteen");
                            return 0;
                    }
```

```
            //for the tens digit
            case 2:
                printf("twenty");
                break;
            case 3:
                printf("thirty");
                break;
            case 4:
                printf("forty");
                break;
            case 5:
                printf("fifty");
                break;
            case 6:
                printf("sixty");
                break;
            case 7:
                printf("seventy");
                break;
            case 8:
                printf("eighty");
                break;
            case 9:
                printf("ninety");
                break;
        }

        //for the ones digit
        switch (ones)
        {
            case 1:
                printf("-one");
                break;
            case 2:
                printf("-two");
                break;
            case 3:
                printf("-three");
                break;
            case 4:
                printf("-four");
                break;
            case 5:
                printf("-five");
                break;
            case 6:
                printf("-six");
                break;
```

```
76
77              //for the ones digit
78              switch (ones)
79              {
80                  case 1:
81                      printf("-one");
82                      break;
83                  case 2:
84                      printf("-two");
85                      break;
86                  case 3:
87                      printf("-three");
88                      break;
89                  case 4:
90                      printf("-four");
91                      break;
92                  case 5:
93                      printf("-five");
94                      break;
95                  case 6:
96                      printf("-six");
97                      break;
98                  case 7:
99                      printf("-seven");
100                     break;
101                 case 8:
102                     printf("-eight");
103                     break;
104                 case 9:
105                     printf("-nine");
106                     break;
107             }
108
109             return 0;
110         }
111
112
113
```

Github link: https://github.com/vjauxysbrynxx/CMSC-21.git