

Selection Statements

Lecture 3 Assignments

1.

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1  /** CELIS, KRISTINA | ASSIGNMENT 3 | as1 */
2  #include <stdio.h>
3  #include <stdbool.h>
4
5  int main(void) {
6      /* VARIABLES */
7      int age;
8      bool teenager;
9
10     /* USER INPUT */
11     printf("Enter age: ");
12     scanf("%d", &age);
13
14     /* TERNARY OPERATOR */
15     teenager = (age >= 13 && age <= 19) ? true : false;
16
17     /* OUTPUT */
18     printf("Teenager? --> %s\n", teenager ? "true" : "false"); // prints 'true' if satisfies condition, else prints 'false'
19
20     return 0;
21 }

```

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Enter age: 14
Teenager? --> true
PS C:\Users\Kristina\Desktop\ACADS\CMSC 21\source codes\lecture 3>

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Enter age: 11
Teenager? --> false
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2.

```

1  /** CELIS, KRISTINA | ASSIGNMENT 3 | as2 */
2
3  #include <stdio.h>
4
5  int main(void) {
6      int num;
7
8      /* While loop for input validation. Will continue to run if input is not between 10 to 99 */
9      while (1) {
10
11         printf("Enter a two-digit number: ");
12         scanf("%d", &num);
13
14         if (num < 10 || num > 99) {
15             printf("Invalid Input! Must be a positive 2-digit number. Please try again.\n");
16         }
17         else {
18             break;
19         }
20     }
21
22     /* OUTPUT */
23     printf("Number entered in words: ");
24
25     /* TENTHS PLACE */
26     switch (num / 10) {
27         case 1: // (n)teen
28             switch (num % 10) { // get the remainder to get the specific digit
29                 case 0: printf("ten"); break;
30                 case 1: printf("eleven"); break;
31                 case 2: printf("twelve"); break;
32                 case 3: printf("thirteen"); break;

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33         case 4: printf("fourteen"); break;
34         case 5: printf("fifteen"); break;
35         case 6: printf("sixteen"); break;
36         case 7: printf("seventeen"); break;
37         case 8: printf("eighteen"); break;
38         case 9: printf("nineteen"); break;
39     }
40     return 0;
41
42     // (n)ty
43     case 2: printf("twenty"); break;
44     case 3: printf("thirty"); break;
45     case 4: printf("fourty"); break;
46     case 5: printf("fifty"); break;
47     case 6: printf("sixty"); break;
48     case 7: printf("seventy"); break;
49     case 8: printf("eighty"); break;
50     case 9: printf("ninety"); break;
51 }
52
53 /* ONES PLACE */
54 switch (num % 10) {
55     case 1: printf("-one"); break;
56     case 2: printf("-two"); break;
57     case 3: printf("-three"); break;
58     case 4: printf("-four"); break;
59     case 5: printf("-five"); break;
60     case 6: printf("-six"); break;
61     case 7: printf("-seven"); break;
62     case 8: printf("-eight"); break;
63     case 9: printf("-nine"); break;
64 }
65 return 0;
66 }

```

```

Enter a two-digit number: 17
Number entered in words: seventeen
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```

```

Enter a two-digit number: 30
Number entered in words: thirty
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Enter a two-digit number: 58
Number entered in words: fifty-eight
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