

# CE103 Algorithms and Programming I

## Week-5

Fall Semester, 2021-2022

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# C Functional Console Programming

## Books and Resources

[free-programming-books/free-programming-books-langs.md](#) at master · EbookFoundation/free-programming-books · GitHub

```
C:\Users\ugur.coruh\Desktop\hello-make>make hello
g++ -o hello hello.c
```

```
C:\Users\ugur.coruh\Desktop\hello-make>dir
Volume in drive C is Windows
Volume Serial Number is 8C3C-8F8C
```

```
Directory of C:\Users\ugur.coruh\Desktop\hello-make
```

```
11/02/2021  01:44 AM    <DIR>          .
11/02/2021  01:44 AM    <DIR>          ..
11/02/2021  01:15 AM                73 hello.c
11/02/2021  01:44 AM            54,022 hello.exe
11/02/2021  01:43 AM             458 Makefile
                3 File(s)            54,553 bytes
                2 Dir(s)  101,382,164,480 bytes free
```

```
C:\Users\ugur.coruh\Desktop\hello-make>hello.exe
hello, world
```

```
C:\Users\ugur.coruh\Desktop\hello-make>
```

# Variables

A variable in programming is a container (storage space) for data.

Each variable should be given a unique name to denote the storage region (identifier).

Variable names are simply a graphical representation of a memory location. As an example:

```
int playerScore = 95;
```

In this case, `playerScore` is an `int` variable. The variable is given the integer value `95` in this case.

A variable's value may be altered, thus the term variable.

```
char ch = 'a';  
// some code  
ch = '1';
```

```
// true if number is less than 0
if (number < 0) {
    printf("You entered %d.\n", number);
}

printf("The if statement is easy.");

return 0;
}
```

## Output 1

```
Enter an integer: -2
You entered -2.
The if statement is easy.
```

When the user types -2, the test expression number < 0 is evaluated as true. As a result, the value -2 that you typed is displayed on the screen.

## Output 2

```
Enter an integer: 5
The if statement is easy.
```