

Ch3: Variables and IO

305171 Computer Programming
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How to use variables

- We use variables when we want to keep data to use later in the program.
- There're two types of variables in C
 - Local variables: it can be seen only in a scope where it's defined.
 - Global variables: it can be seen anywhere in the program

Basic Data Types in C

- Basic types
 - Char
 - Int
 - Float
 - Double
 - Boolean
- Modifiers
 - Signed
 - Unsigned
 - Short
 - Long

How to declare variables

Assign a value separately after a declaration

```
int main()
{
    int x;
    x=10;
    int x,y;
    y=4;

    char z;
    z='g';

    double u=4.0,w;

    float p=1.2,q=3.5;

    return 0;
}
```

Declare one variable

Declare more than one variables

Declare and assign value in one instruction

Understand Printf with variables

- We can use a variable instead of value.

```
#include <stdio.h>

int main()
{
    int x =45;
    printf("%d %s \n",x, "Hello");

    return 0;
}
```

How to receive input with “scanf”

```
#include <stdio.h>

int main()
{
    int x;
    printf("Enter a number:\n");
    scanf("%d",&x);

    printf("%d %s \n",x, "Hello");
    return 0;
}
```

Must be the same
type with the variable
we declared

&name of variable we
declared

Basic Data Types & Input/Output

Basic types	printf or scanf
char	%c
bool	%d
int	%d
float	%f
double	%f