DATATYPES

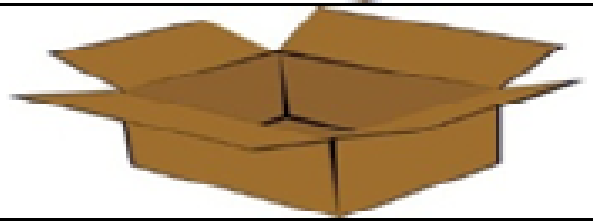
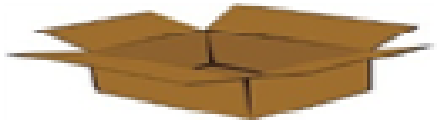
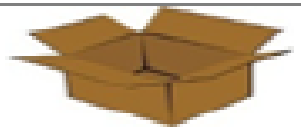
- Keywords
  - char, static, if , while, return ..... Total= about 32
- Data Types
  - int , char, float ..... Some more later
- Arithmetic Operators
  - + (Plus), - (Minus), * (Multiplication), /(Division)

    ..... Some more later

Some more Data Types

- Primary : int, float, char
  - int (signed/unsigned)(2,4Bytes): used to store integers.
  - char (signed/unsigned)(1Byte): used to store characters
  - float, double(4,8Bytes): used to store a decimal number.

- User Defined:
  - typedef: used to rename a data type
    - typedef int *integer*; can use *integer* to declare an int.
  - enum, struct, union

Analogy	Descriptions
	Real Data Type: Double
	Real Data Type: Float
	Integer Data Type
	Character Data Type
	String: Sequence of Characters

My first C program!

```
#include <stdio.h>
// program prints hello world
int main() {
   printf ("Hello world!");
   return 0;
}
```

Output: Hello world!

Example 1

```
#include <stdio.h>
// program prints a number of type int
int main() {
    int number = 4;
    printf (“Number is %d”, number);
    return 0;
}
```

Output: Number is 4

Example 2

```
#include <stdio.h>
// program reads and prints the same thing
int main() {
    int number ;
    printf (" Enter a Number: ");
    scanf ("%d", &number);
    printf ("Number is %d\n", number);
    return 0;
}
```

Output : Enter a number: 4
Number is 4

more and more

```
#include <stdio.h>

int main() {
   /* this program adds
   two numbers */
   int a = 4; //first number
   int b = 5; //second number
   int answer = 0; //result
   answer = a + b;
}
```

Note

Errors

Compilation

Compiler generally gives the line number at which the error is present.

Run time

C programs are sequential making the debugging easier.