Lesson 6

Fundamental Data Types — Integer (Part 1)

- ## Size of Integer

  1 byte = 8 bits

  2 bytes = 16 bits

  4 bytes = 32 bits

  more the size, more content it can hold

  ### Wanna Know Size Programmatically

  use " sizeof " operator (使用 sizeof 运算符)

  Note: sizeof is a unary operator and not a function (sizeof 是运算符而不是函数)

  ```
  #include <stdio.h>

  int main(){
      printf("%d",sizeof(int));
      return 0;
  }
  //output: 4 or 2 (different machines get different results)
  ```

- ## Range

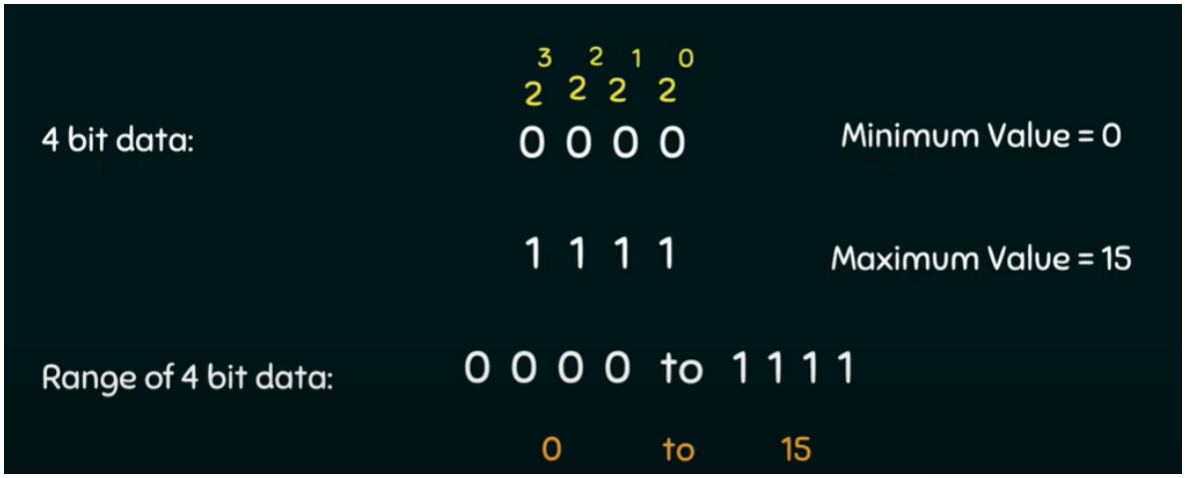
  range: upper and lower limit of some set of data (范围是一组数据的上限和下限)

  ### prerequisites(先决条件):

  Decimal number system: Human Understandable number system.
  Also called as base 10 number system.
  range: 0 to 9

  Binary number system: Machine Understandable number system.
  Also called as base 2 number system.
  range: 0 to 1

Range of 4 Bit Data



range of 4 bit data: 0000 (0) to 1111 (15)

Range of Integer