8. Reverse String — Optimize, two pointer and swap.

9. compare two String. — Introduction of how computer compare two String.

10. Check Palindrome. — identify what is Palindrome (if you reverse the String, the String remains the same).

11. Finding ~~dati~~ duplicate in String — Hashtable with understanding ASCI Table.

12. Finding duplicates in a String using Bitwise Operation — Knowing Bitwise Operation
   - left shift
   - merging
   - masking

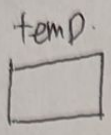
   understand most significant bit
   least significant bit.

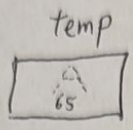
13. Check if 2 string are Anagram. — Understand what is anagram?

14. Permutation of a String. 排列

   - State Space Tree
   - Back tracking
   - Brutal Force
   - recursion.
   - swap

String. ASCII codes unicodes

char; 

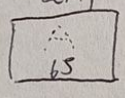
How computer store, character. 

character array X[5] = {'A', 'B', 'C', 'D', 'E',}

char name[10] = {'J', 'O', 'h', 'h',};

string delimeter.

1. How computer store character
   character set.
   character encoding
2. character array 、 string.
3. Read / Write String
   understand how computer identify string ends.



ASCII code. — why 8 bit?

Unicodes 14萬 — How ~~tang~~ different language store in computer

UTF 8

char[10] = {'J', 'O', 'H', 'N', '\0'};
= "John";

printf("%s", name); } one word.
scanf("%s", name);

gets(name) } sentence

4. Find length of a string. — knowing C++ end of string is '\0' string terminator
5. Change Case. of a String — knowing C++ compiler give. charter A. a ±32.
6. Count words and vowels in a string — space seperate words, spaces.
   what is vowels? aeiou
7. validate String — special string
8. Reverse. String — create new array and store the value using loop
   from backward of array

0000
0001
0010
0011
0100
0101
0110
0111
1000
1001
1010
1011
1100
1101
1110
1111

$2^8 = 16 \times 16 = 96 + 160 = 256$