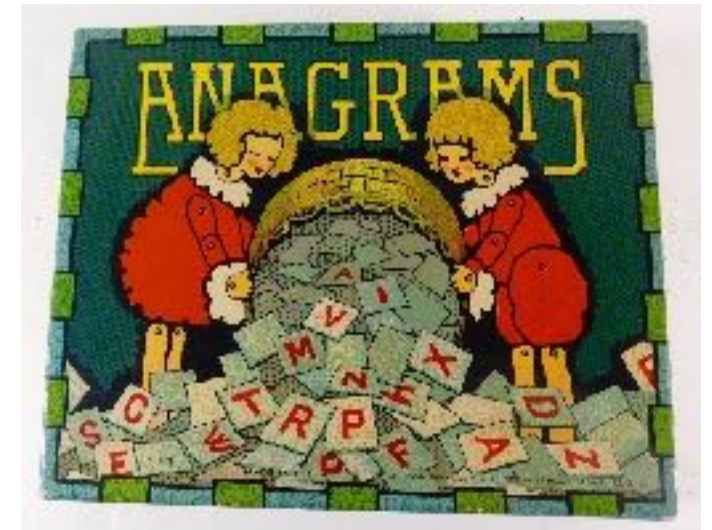
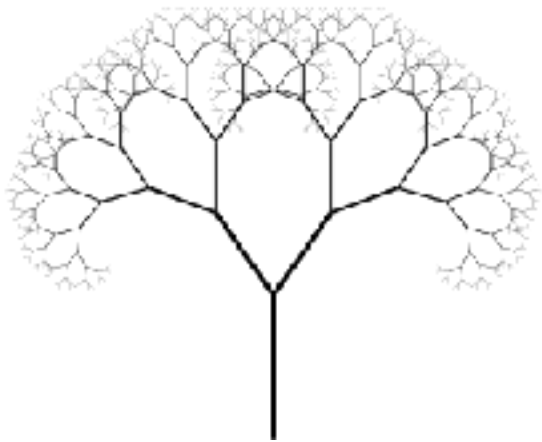


STRINGS RECURSION



Problem Solving with Computers-I



Strings

Q1: How are ordinary arrays of characters and C-strings similar and how are they dissimilar?

The C++ string class methods

```
string fruit = "Apple";  
int len = fruit.length();  
int pos= fruit.find('l');  
string part= fruit.substr(1,3);  
fruit.erase(2,3);  
fruit.insert(2,"ricot");  
fruit.replace(2,5,"ple");
```

Check out `cctype` for checks and conversions on characters

```
fruit[0]= tolower(fruit[0]);  
isalpha(fruit[0])  
isalnum(fruit[0])
```

What is the output of the code?

```
char s1[] = "Mark";  
char s2[] = "Jill";  
for (int i = 0; i <= 4; i++)  
    s2[i] = s1[i];  
if (s1 == s2) s1 = "Art"; ←  
cout<<s1<<" "<<s2<<endl;
```

- A. Mark Jill
- B. Mark Mark
- C. Art Mark
- D. Compiler error
- E. Run-time error

What is the output of the code?

```
string s1 = "Mark";  
string s2 = "Jill";  
for (int i = 0; i <= s1.length(); i++)  
    s2[i] = s1[i];  
if (s1 == s2) s1 = "Art";  
cout<<s1<<" "<<s2<<endl;
```

- A. Mark Jill
- B. Mark Mark
- C. Art Mark
- D. Compiler error
- E. Run-time error

Lab 08: anagrams and palindromes

```
bool isPalindrome(string s1)
```

deTartraTED

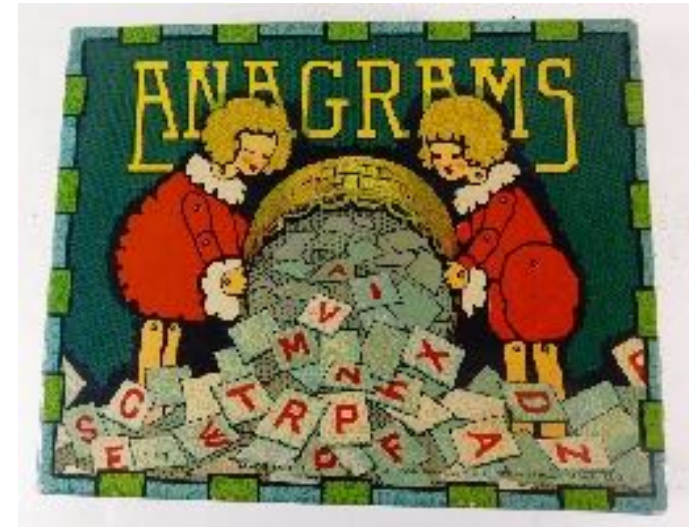
WasItACarOrACatISaw

```
bool isAnagram(string s1, string s2)
```

Diba == Adib

Rats and Mice == In cat's dream

Waitress == A stew, Sir?



Why don't we pass the length of the string?

```
double sumList(Node* head){
```

[Needs a base case up here]

```
    double sumRest;  
    sumRest = sumList(head->next);  
    return head->data + sumRest;  
}
```

