1. Offline:

   Overload relational operators for String class. Using these operator implement a ***sorting algorithm*** (for simplicity use bubble sort) and ***binary search***. Also overload operators or provide appropriate functions that are required to execute the ***replaceAll*** and ***main*** function provided below.

```
class String{
   private:

   char *s;
   int len;

   public:
   String(){};
   String(char *p){};


};


String replaceAll(String str,char a,char b){

   for (int i=0;i<str.getLen();i++){

                  if(str[i]==a){
                        str[i]=b;
                  }

   }

   return str;

 }
```

```
int main(){
    char p[1000];
    String s("BUET");
    String strArray[20];


    for(int i=0;i<10;i++){
        cin>>p;

        strArray[i].setString(p);
    }

    bubbleSort(strArray,10);



    for(int i=0;i<10;i++){
        cout<<strArray[i].getString()<<endl;
    }
    cout<<binarySearch(strArray,10,s);
    s=replaceAll(s,'T','L'); // s should now contain "BUEL"
    cout<< (s++).getString()<<endl;
     // s should contain "CVFM" , but in the console the output should be "BUEL"
     cout<<s.getString()<<endl; // the output should be "CVFM"
}
```