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#include <stdio.h>
#include <stdlib.h>

void generateAllStrings(char *str, int K, int done){
    if(done == 0){ // We can freely choose the first character
        // Strings starting with 0 all come before strings starting with 1
        // in terms of lexicographic ordering
        str[0] = '0';
        generateAllStrings(str, K, 1); // Strings starting with 0
        str[0] = '1' ;
        generateAllStrings(str, K, 1); // Strings starting with 1
    }else if(done == K){
        printf("%s\n", str);
    }else{
        if(str[done - 1] == '0'){
            str[done] = '1'; // No choice - could not have placed a '0'
            generateAllStrings(str, K, done + 1);
        }else{ // Can place both a 0 and a 1 here
            str[done] = '0';
            generateAllStrings(str, K, done + 1);
            str[done] = '1';
            generateAllStrings(str, K, done + 1);
        }
    }
}

int main(){
    int K;
    scanf("%d", &K);
    char str[K+1]; // K characters plus one NULL character
    str[K] = '\0';
    generateAllStrings(str, K, 0);
    return 0;
}
```