# GE23131-Programming Using C-2024

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| **Status** | Finished |
| **Started** | Monday, 23 December 2024, 5:33 PM |
| **Completed** | Friday, 20 December 2024, 2:18 PM |
| **Duration** | 3 days 3 hours |

**Question 1**

Correct

Marked out of 3.00

⚑ Flag question

Write a program that prints a simple chessboard.

Input format:

The first line contains the number of inputs T.
The lines after that contain a different values for size of the chessboard

Output format:

Print a chessboard of dimensions size * size. Print a Print W for white spaces and B for black spaces.

Input:

2

3

5

Output:

WBW

BWB

WBW

WBWBW

BWBWB

WBWBW

BWBWB

WBWBW

**Answer:** (penalty regime: 0 %)

```c
#include<stdio.h>
int main(){
    int n,r,i,j;
    scanf("%d",&n);
    while(n){
        scanf("%d",&r);
        for(i=0;i<r;i++){
            for(j=0;j<r;j++){
                if((i+j)%2==0)
                printf("W");
                else
                printf("B");
            }
            printf("\n");
        }
        n=n-1;
    }
    return 0;
}
```

| | Input | Expected | Got | |
|---|---|---|---|---|
| ✓ | 2<br>3<br>5 | WBW<br>BWB<br>WBW<br>WBWBW<br>BWBWB<br>WBWBW<br>BWBWB<br>WBWBW | WBW<br>BWB<br>WBW<br>WBWBW<br>BWBWB<br>WBWBW<br>BWBWB<br>WBWBW | ✓ |

Passed all tests! ✓

Let's print a chessboard!

Write a program that takes input:

The first line contains T, the number of test cases

Each test case contains an integer N and also the starting character of the chessboard

Output Format

Print the chessboard as per the given examples

Sample Input / Output

Input:

2

2 W

3 B

Output:

WB

BW

BWB

WBW

BWB

**Answer:** (penalty regime: 0 %)

```c
#include<stdio.h>
int main(){
    int n,r,i,j;
    char a;
    scanf("%d",&n);
    while(n){
        scanf("%d %c",&r,&a);
        for(i=0;i<r;i++){
            for(j=0;j<r;j++){
                if(a=='W'){
                    if((i+j)%2==0)
                    printf("W");
                    else
                    printf("B");
                }
```

```
16 ▼            else if(a== B ){
17                 if((i+j)%2==0)
18                     printf("B");
19                 else
20                     printf("W");
21             }
22             }
23             printf("\n");
24         }
25         n=n-1;
26     }
27     return 0;
28 }
```

| | Input | Expected | Got | |
|---|---|---|---|---|
| ✓ | 2<br>2 W<br>3 B | WB<br>BW<br>BWB<br>WBW<br>BWB | WB<br>BW<br>BWB<br>WBW<br>BWB | ✓ |

Passed all tests! ✓

Decode the logic and print the Pattern that corresponds to given input.


If N= 3


then pattern will be :


10203010011012

**4050809

****607


If N= 4, then pattern will be:


1020304017018019020

**50607014015016

****809012013

******10011

Constraints

2 <= N <= 100

Input Format

First line contains T, the number of test cases

Each test case contains a single integer N

Output

First line print Case #i where i is the test case number

In the subsequent line, print the pattern

Test Case 1

3

3

4

5

Output

Case #1

10203010011012

**4050809

****607

Case #2

1020304017018019020

**50607014015016

****809012013

******10011

Case #3

102030405026027028029030

**6070809022023024025

****10011012019020021

******13014017018

********15016

**Answer:** (penalty regime: 0 %)

```c
#include<stdio.h>
int main(){
    int n,v,p,c,in,i,il,i2,t,ti;
    scanf("%d",&t);
    for(ti=0;ti<t;ti++){
        v=0;
        scanf("%d",&n);
        printf("Case #%d\n",ti+1);
        for(i=0;i<n;i++){
            c=0;
            if(i>0){
                for(il=0;il<i;il++)
                    printf("**");
            }
            for(il=i;il<n;il++){
                if(i>0)
                    c++;
                printf("%d0",++v);
            }
            if(i==0){
                p=v+(v*(v-1))+1;
                in=p;
            }
            in=in-c;
            p=in;
            for(i2=i;i2<n;i2++){
                printf("%d",p++);
                if(i2!=n-1)
                    printf("0");
            }
            printf("\n");
        }
    }
}
```

| | Input | Expected | Got | |
|---|---|---|---|---|
| ✓ | 3 | Case #1 | Case #1 | ✓ |
| | 3 | 10203010011012 | 10203010011012 | |
| | 4 | **4050809 | **4050809 | |
| | 5 | ****607 | ****607 | |

```
Case #1
1020304017018019020          1020304017018019020
**50607014015016             **50607014015016
****809012013                ****809012013
******10011                  ******10011
Case #3                      Case #3
10203040450260270280290030   10203040450260270280290030
**60708090022023024025       **60708090022023024025
****100110120190200021       ****100110120190200021
******13014017018           ******13014017018
********15016               ********15016
```

Passed all tests! ✓

Finish review