# GE23131-Programming Using C-2024

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|---|---|
| **Status** | Finished |
| **Started** | Tuesday, 24 December 2024, 8:19 AM |
| **Completed** | Tuesday, 24 December 2024, 9:04 AM |
| **Duration** | 44 mins 39 secs |

**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 T,d,i=0,i1,i2,o;
    char c;
    scanf("%d",&T);
    while(i<T)
    {
        scanf("%d",&d);
        i1=0;
        while(i1<d)
        {
            o=1;
            i2=0;
            if(i1%2==0)
            {
                o=0;
            }
            while(i2<d)
            {
                c='B';
                if(i2%2==o)
                {
                    c='W';
                }
                printf("%c",c);
                i2++;
            }
            i1+=1;
            printf("\n");
        }
        i=i+1;
    }
}
```

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 T,d,i,i1,i2,o,z;
    char c,s;
    scanf("%d",&T);
    for(i=0;i<T;i++)
    {
        scanf("%d %c",&d,&s);
        for(i1=0;i1<d;i1++)
        {
            z=(s=='W')?0:1;
            o=(i1%2==z)?0:1;
            for(i2=0;i2<d;i2++)
            {
                c=(i2%2==o)?'W':'B';
                printf("%c",c);
            }
            printf("\n");
        }
    }
    return 0;
}
```

| | 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 %)

```
1  #include<stdio.h>
2  int main()
3  {
4      int n,v,p3,c,in,i,i1,i2,t,ti;
5      scanf("%d",&t);
6      for(ti=0;ti<t;ti++)
7      {
8          v=0;
```

```c
        scanf("%d",&n);
        printf("Case #%d\n",ti+1);
        for(i=0;i<n;i++)
        {
            c=0;
            if(i>0)
            {
                for(i1=0;i1<i;i1++)
                printf("**");
            }
            for(i1=i;i1<n;i1++)
            {
                if(i>0) c++;
                printf("%d0",++v);
            }
            if(i==0)
            {
                p3=v+(v*(v-1))+1;
                in =p3;
            }
            in =in-c;
            p3=in;
            for(i2=i;i2<n;i2++)
            {
                printf("%d",p3++);
                if(i2!=n-1)
                printf("0");
            }
            printf("\n");
        }
    }
}
```

| | Input | Expected | Got | |
|---|---|---|---|---|
| ✓ | 3<br>3<br>4<br>5 | Case #1<br>10203010011012<br>**4050809<br>****607<br>Case #2<br>1020304017018019020<br>**50607014015016<br>****809012013<br>******10011<br>Case #3<br>102030405026027028029030<br>**6070809022023024025<br>****10011012019020021<br>******13014017018<br>********15016 | Case #1<br>10203010011012<br>**4050809<br>****607<br>Case #2<br>1020304017018019020<br>**50607014015016<br>****809012013<br>******10011<br>Case #3<br>102030405026027028029030<br>**6070809022023024025<br>****10011012019020021<br>******13014017018<br>********15016 | ✓ |

Passed all tests! ✓

Finish review