# GE23131-Programming Using C-2024

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| Started | Monday, 23 December 2024, 5:33 PM |
| Completed | Tuesday, 10 December 2024, 1:06 PM |
| Duration | 13 days 4 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
1  #include<stdio.h>
2  int main(){
3      int T,size,i,j;
4      scanf("%d",&T);
5      while(T--){
```

```
 6          scanf("%d",&size);
 7          for(i=0;i<size;i++){
 8              for(j=0;j<size;j++){
 9                  if((i+j)%2==0){
10                      printf("W");
11                  }
12                  else{
13                      printf("B");
14                  }
15              }
16              printf("\n");
17          }
18      }
19      return 0;
20  }
```
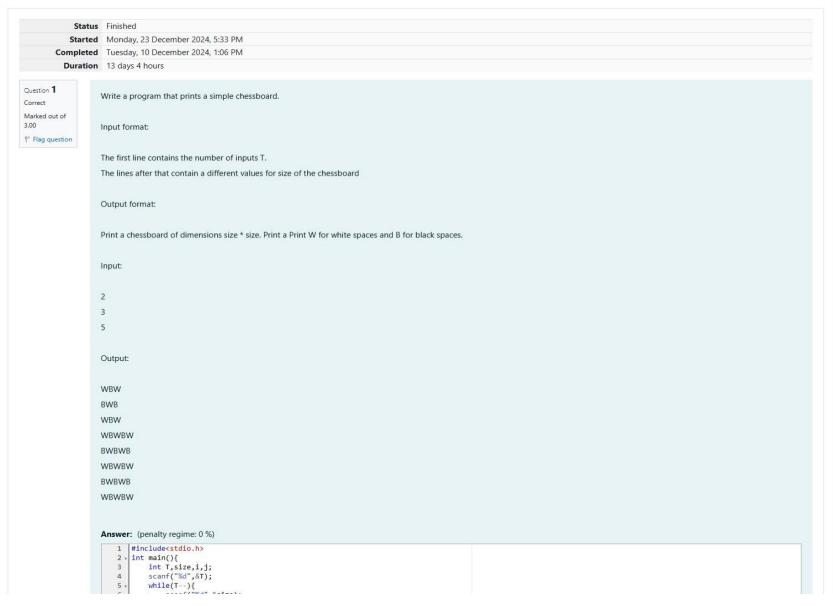
| | Input | Expected | Got | |
|---|---|---|---|---|
| ✓ | 2 | WBW | WBW | ✓ |
| | 3 | BWB | BWB | |
| | 5 | WBW | WBW | |
| | | WBWBW | WBWBW | |
| | | BWBWB | BWBWB | |
| | | WBWBW | WBWBW | |
| | | BWBWB | BWBWB | |
| | | WBWBW | WBWBW | |

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
1   #include<stdio.h>
2   int main(){
3       int T,N,i,j;
4       char ch;
5       scanf("%d",&T);
6       while(T--){
7           scanf("%d %c",&N,&ch);
8           for(i=0;i<N;i++){
9               for(j=0;j<N;j++){
10                  printf("%c",ch);
11                  ch=(ch=='W')?'B':'W';
12              }
13              printf("\n");
14              if(N%2==0){
15                  ch=(ch=='W')?'B':'W';
16              }
17          }
18      }
19      return 0;
20  }
```

| | 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! ✓

Question **3**

Correct

Marked out of 7.00

⚑ Flag question

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

10203040502602702802 9030

**6070809022023024025

****10011012019020021

******13014017018

*******15016

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

```c
#include<stdio.h>
int main(){
    int t;
    scanf("%d",&t);
    for(int x=1;x<=t;x++){
    printf("Case #%d\n",x);
    int n;
    scanf("%d",&n);
    int f=1,b=n*(n+1);
    for(int i=0;i<n;i++)
    {
        for(int k=0;k<2*i;k++){
            printf("*");
        }
        printf("%d",f);
        f++;
        for(int j=2;j<=n-i;j++)
    {
        printf("0%d",f);
        f++;
    }
    for(int l=b-(n-i)+1;l<=b;l++)
    {
        printf("0%d",l);
    }
    b-=n-i;
    printf("\n");
    }
    }
    return 0;
}
```

| | 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