GE23131-Programming Using C-2024

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Status	Finished
Started	Monday, 23 December 2024, 5:33 PM
Completed	Friday, 20 December 2024, 1:38 PM
Duration	3 days 3 hours

Question 1

Correct

Marked out of 3.00

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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,size;
    scanf("%d",&T);
    while(T--)
    {
        scanf("%d",&size);
        for(int i=0;i<size;i++)
        {
            for(int j=0;j<size;j++)
            {
                if((i+j)%2==0)
                {
                    printf("W");
                }
                else
                {
                    printf("B");
                }
            }
            printf("\n");
        }
    }
}
```

	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! ✓

Question **2**

Correct

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  {
4      int T;
5      scanf("%d",&T);
6      while(T--)
7      {
8          int n;
9          char starchar;
10         scanf("%d %c",&n,&starchar);
11         char firstchar = starchar;
12         char secondchar = (starchar=='B')?'W':'B';
```

```
13              for(int i=0;i<n;i++)
14      {
15              for(int j=0;j<n;j++)
16              {
17                      if((i+j)%2==0)
18                      {
19                              printf("%c",firstchar);
20                      }
21                      else
22                      {
23                              printf("%c",secondchar);
24                      }
25              }
26              printf("\n");
27      }
28      }
29  }
```

	Input	Expected	Got	
✓	2 2 W 3 B	WB BW BWB WBW BWB	WB BW BWB WBW 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 t,n,x,y,i,ans,c,z=1;
    scanf("%d",&t);
    while(z<=t)
    {
        scanf("%d",&n);
        printf("Case #%d\n",z);
        y=1;
        i=1;
        c=0;
        while(y<=n)
        {
            x=1;
            ans=(n*n);
            ans=ans-c;
            while(x<=2*n)
            {
                if(x<=n)
                {
                    if(x<y)
                    printf("**");
                    else if(x<=n)
                    {
                        printf("%d",i*10);
                        i++;
                    }
                }
                else
                {
                    if((x+y)==(2*n+1))
                    {
                        printf("%d",(ans+y));
                        ans ++;
                        c ++;
                    }
                    else if(x+y<=(2*n+1))
                    {
                        printf("%d",(ans+y)*10);
```

```
41                          ans ++;
42                          c++;
43                      }
44                  }
45              x++;
46          }
47          y ++;
48          printf("\n");
49      }
50      z++;
51  }
52  return 0;
```

	Input	Expected	Got	
✓	3 3 4 5	Case #1 10203010011012 **4050809 ****607 Case #2 1020304017018019020 **50607014015016 ****809012013 ******10011 Case #3 102030405026027028029030 **6070809022023024025 ****100110120190200021 ******13014017018 ********15016	Case #1 10203010011012 **4050809 ****607 Case #2 1020304017018019020 **50607014015016 ****809012013 ******10011 Case #3 102030405026027028029030 **6070809022023024025 ****100110120190200021 ******13014017018 ********15016	✓

Passed all tests! ✓

Finish review