Week 5 – 1:

ROLL NO.:240801195

Name: MANOJKUMAR E

Status	Finished
Started	Monday, 23 December 2024, 5:33 PM
Completed	Thursday, 19 December 2024, 9:04 AM
Duration	4 days 8 hours

Q1) 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 value for size of the chessboard

Output format:

Print a chessboard of dimensions size * size.

Print W for white spaces and B for black spaces.

Sample Input:

2

3

5

Sample Output:

WBW

BWB

WBW

WBWBW

BWBWB

WBWBW

BWBWB

WBWBW

Code:

```
clude<stdio.h>
main()

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

OUTPUT:

	Input	Expected	Got	
✓	2 3 5	WBW BWB WBW WBWBW BWBWB WBWBW BWBWB WBWBW	WBW BWB WBW WBWBW BWBWB WBWBW BWBWB WBWBW	✓

Passed all tests! ✓

Q2) 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:

2

2 W

3 B

Sample Output:

WB

BW

BWB

WBW

BWB

Code:

```c
include<stdio.h>
nt 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) ? '
                printf("%c",c);
            }


             printf("\n");
        }
    }
    return 0;
```

OUTPUT:

	Input	Expected	Got	
✓	2 2 W 3 B	WB BW BWB WBW BWB	WB BW BWB WBW BWB	✓

Passed all tests! ✓

Q3) 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 Format

First line print Case #i where i is the test case number, In the subsequent line, print the pattern

Sample Input

3

3

4

5

Sample Output

Case #1

10203010011012

**4050809

****607

Case #2

1020304017018019020

**50607014015016

****809012013

******10011

Case #3

10203040502602702802903O

**6070809022023024025

****10011012019020021

******13014017018

********15016

Code:

```
ude <stdio.h>
ain(){
nt a,b,c,d,e,f,i,j,k,n;
canf("%d",&a);
or (b=0;b<a;b++){
    c=0;
    scanf("%d",&n);
    printf("Case #%d\n",b+1);
    for(i=0;i<n;i++){
        d=0;
        if(i>0){
            for(j=0;j<i;j++)pri
            }
            for(j=i;j<n;j++){
                if(i>0)d++;
                printf("%d0",++
            }
            if(i==0){
                e=c+(c*(c-1))+1
            }
            f=f-d;e=f;
            for(k=i;k<n;k++){
                printf("%d",e++
                if(k!=n-1)print
            }printf("\n");
        }
    }
```

OUTPUT:

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

Passed all tests! ✓