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

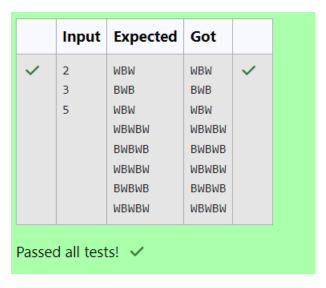
WBWBW

BWBWB

Code:

```
clude<stdio.h>
 1
     main()
 2
 3 ▼
     int a,b,j,i;
 4
     scanf("%d",&a);
 5
     while(a--){
          scanf("%d",&b);
 7
          for(i=0;i<b;i++){</pre>
 8 •
              for(j=0;j<b;j++){</pre>
 9 🔻
                   if((i+j)\%2==0)
10
                   printf("W");
11
                   else printf("B");
12
13
              printf("\n");
14
15
16
     }
```

OUTPUT:



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:

```
include<stdio.h>
 1
 2
    nt main()
 3 ▼
       int T,d,i,i1,i2,o,z;
 4
 5
       char c,s;
       scanf("%d",&T);
 6
       for(i=0;i<T;i++)
 7
 8 •
       {
           scanf("%d %c",&d,&s);
 9
           for(i1=0;i1<d;i1++)</pre>
10
           {
11 ▼
                z=(s=='W')?0:1;
12
13
                o=(i1\%2==z)?0:1;
                for(i2=0;i2<d;i2++)
14
15 ▼
16
                    c=(i2\%2==0) ? '
                    printf("%c",c);
17
18
                }
19
20
                printf("\n");
21
22
23
       return 0;
24
```

OUTPUT:

Input	Expected	Got	
2 2 M	WB RW	WB RW	~
3 B	BWB	BWB	
	WBW	WBW	
	BMB	BMB	
d all test	rs! 🗸		
	2 2 W 3 B	2 WB 2 W BW 3 B BWB	2 W BW BW 3 B BWB BWB WBW WBW BWB BWB

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
```

102030405026027028029030

6070809022023024025 **10011012019020021

*****13014017018

******15016

Code:

```
ude <stdio.h>
 2 vain(){
    nt a,b,c,d,e,f,i,j,k,n;
    canf("%d",&a);
 4
 5 \text{ vor } (b=0;b<a;b++){}
       c=0;
 6
 7
       scanf("%d",&n);
       printf("Case #%d\n",b+1);
 8
 9 •
       for(i=0;i<n;i++){
10
            d=0;
            if(i>0){
11 •
12
                 for(j=0;j<i;j++)pri</pre>
13
                 for(j=i;j<n;j++){</pre>
14 ▼
15
                      if(i>0)d++;
                     printf("%d0",++
16
17
                 if(i==0){
18 🔻
                      e=c+(c*(c-1))+1
19
20
21
                 f=f-d;e=f;
                 for(k=i;k<n;k++){</pre>
22 ▼
                      printf("%d",e++
23
                      if(k!=n-1)print
24
                 }printf("\n");
25
26
            }
27
       }
28
```

OUTPUT:

Case #1 10203010011012 10203010011012 4 **4050809 5 ****607 Case #2 1020304017018019020 1020304017018019020 **50607014015016 ****809012013 *****10011 Case #3 102030405026027028029030 **6070809022023024025 ****10011012019020021 ******13014017018 ******13014017018 *******15016 Case #1 10203010011012 Case #3 102030405026027028029030 **6070809022023024025 ****10011012019020021 *******13014017018 ********15016		Input	Expected	Got	
4 **4050809 **4050809 5 ****607 Case #2 1020304017018019020 1020304017018019020 **50607014015016 **50607014015016 ****809012013 *****809012013 ******10011 Case #3 102030405026027028029030 102030405026027028029030 **6070809022023024025 **6070809022023024025 ****10011012019020021 *****10011012019020021 ******13014017018	~	3	Case #1	Case #1	~
5 ****607 Case #2 1020304017018019020 **50607014015016 ****809012013 ******10011 Case #3 102030405026027028029030 **6070809022023024025 ****10011012019020021 ******13014017018 ******13014017018 ******13014017018		3	10203010011012	10203010011012	
Case #2 1020304017018019020 1020304017018019020 **50607014015016 ****809012013 ******10011 Case #3 102030405026027028029030 **6070809022023024025 ****10011012019020021 ******13014017018 Case #2 1020304017018019020021 ******13014017018		4	**4050809	**4050809	
1020304017018019020 1020304017018019020 **50607014015016 **50607014015016 ****809012013 ******10011 Case #3 102030405026027028029030 102030405026027028029030 **6070809022023024025 **6070809022023024025 ****10011012019020021 *****10011012019020021 ******13014017018		5	****607	****607	
50607014015016 **809012013 ******10011 Case #3 102030405026027028029030 **6070809022023024025 ****10011012019020021 ******13014017018 ******13014017018 ***50607014015016 ******10011 Case #3 102030405026027028029030 **6070809022023024025 ****10011012019020021 ******13014017018			Case #2	Case #2	
****809012013 ******10011 Case #3 102030405026027028029030 **6070809022023024025 ****10011012019020021 ******13014017018 ******13014017018 *******13014017018			1020304017018019020	1020304017018019020	
******10011 Case #3 102030405026027028029030 **6070809022023024025 ****10011012019020021 ******13014017018 ******13014017018 ******13014017018			**50607014015016	**50607014015016	
Case #3 102030405026027028029030 **6070809022023024025 ****10011012019020021 ******13014017018 Case #3 102030405026027028029030 **6070809022023024025 ****10011012019020021 ******13014017018			****809012013	****809012013	
102030405026027028029030			*****10011	*****10011	
**6070809022023024025			Case #3	Case #3	
****10011012019020021			102030405026027028029030	102030405026027028029030	
*****13014017018			**6070809022023024025	**6070809022023024025	
			****10011012019020021	****10011012019020021	
******15016 ******15016			*****13014017018	*****13014017018	
			******15016	******15016	