Week 5 – 1:

ROLL NO:240801186

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Status	Finished
Started	Monday, 23 December 2024, 5:33 PM
Completed	Thursday, 19 December 2024, 8:39 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** 

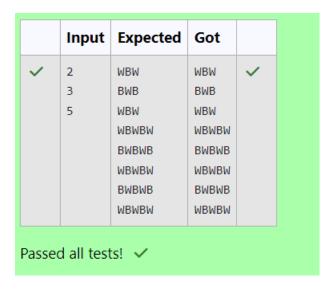
**BWBWB** 

**WBWBW** 

Code:

```
1
    #include <stdio.h>
 2 v int main(){
 3
        int T,d,i=0,i1,i2,o;
 4
        char c;
        scanf("%d",&T);
 5
        while (i<T){
 6 •
             scanf("%d",&d);
 7
             i1=0;
 8
9 🔻
             while(i1<d){</pre>
                 o=1;
10
                 i2=0;
11
12 •
                 if(i1%2==0){
13
                     0=0;
14
15 v
                 while (i2<d){
16
                     c='B';
                     if (i2%2==o){
17 •
                         c='W';
18
19
                     }
                     printf("%c",c);
20
21
                     i2++;
22
23
                 i1+=1;
                 printf("\n");
24
25
             i=i+1;
26
27
28 }
```

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

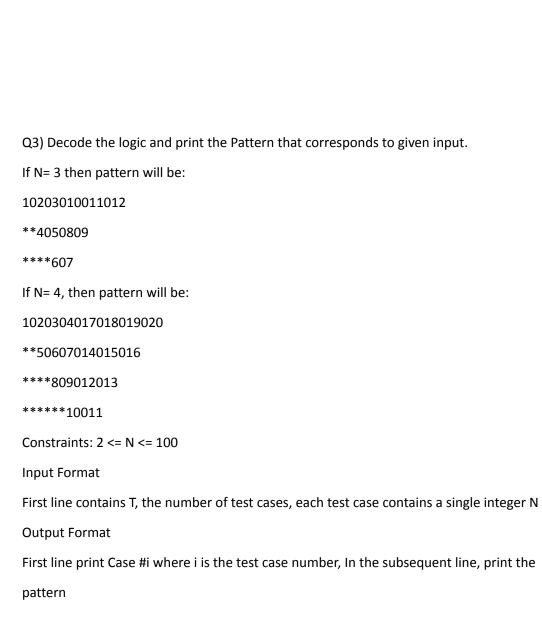
Code:

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

## OUTPUT:

	Input	Expected	Got	
<b>~</b>	2	WB	WB	~
	2 W	BW	BW	
	3 B	BWB	BWB	
		WBW	WBW	
		BWB	BWB	

Passed all tests! <



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:

```
#include <stdio.h>
 1
 2 •
    int main(){
         int n,v,p3,c,in,i,i1,i2,t,ti;
 3
         scanf("%d",&t);
 4
         for (ti=0;ti<t;ti++){</pre>
 5 ,
 6
             v=0;
             scanf("%d",&n);
 7
             printf("Case #%d\n",ti+1);
 8
 9
             for (i=0;i<n;i++){</pre>
10
                  c=0;
                  if(i>0){
11 •
                      for(i1=0;i1<i;i1++) printf("**");</pre>
12
13
                  }
              for(i1=i;i1<n;i1++){</pre>
14 ▼
15
                  if(i>0) c++;
                  printf("%d0",++v);
16
17
              }
             if(i==0){
18 •
                  p3=v+(v*(v-1))+1;
19
20
                  in=p3;
21
              }
22
             in=in-c;
23
             p3=in;
             for(i2=i;i2<n;i2++){</pre>
24 •
                  printf("%d",p3++);
25
                  if(i2!=n-1) printf("0");
26
27
             }printf("\n");
28
              }
29
30
```

OUTPUT:

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

Passed all tests! ✓