

Week-05-Nested Loops - while and for, Jumps in Loops

Dashboard / My courses / GE23131-PUC-2024 / Week-05-Nested Loops - while and for, Jumps in Loops

Navigation

- Dashboard
- Site home
- Site pages
- My courses
 - GE23131-PUC-2024
 - Participants
 - Competencies
 - Grades
 - General
 - Lecture Notes
 - Week-01-Overview of C, Constants, Variables and Da...
 - Assessment-01-Overview of C, Constants, Variables ...
 - Week-02-Operators and Expressions, Managing Input

Assessment-04-Decision Making and Branching - if...else if and switch...case

Assessment-05-Decision Making and Looping - while and do...while

Week-05-01-Practice Session-Coding

Done

Week-05-02-Practice Session-Coding

Done

Assessment-04-Decision Making and Branching - if...else if and switch...case

Jump to...

Assessment-05-Decision Making and Looping - while and do...while

GE23131-Programming Using C-2024

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 - Assessment-02-Operators and Expressions, Managing

Attempts allowed: 3

This quiz has been configured so that students may only attempt it using the Safe Exam Browser.

Time limit: 2 hours

Grading method: Highest grade

Your attempts

Attempt 1

Status	Finished
Started	Monday, 23 December 2024, 5:33 PM
Completed	Thursday, 5 December 2024, 4:37 PM
Duration	18 days

Review

The Safe Exam Browser keys could not be validated. Check that you're using Safe Exam Browser with the correct configuration file.

Week-05-01-Practice Session-Coding: Attempt review | REC-CIS - Google Chrome

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REC-CIS

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Quiz navigation

1

2

3

Show one page at a time

Finish review

Status

Finished

Started

Monday, 23 December 2024, 5:33 PM

Completed

Thursday, 5 December 2024, 4:37 PM

Duration

18 days

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

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REC-CIS

3

5

Output:

WBW
BWB
WBW
WBWBW
BWBWB
WBWBW
BWBWB
WBWBW

Answer: (penalty regime: 0 %)

```
1 #include<stdio.h>
2 int main()
3 {
4     int t,d,i=0,o,il,iq;
5     char c;
6     scanf("%d",&t);
7     while(i<t)
8     {
9         scanf("%d",&d);
10        il=0;
11        while(il<d)
12        {
```

Week-05-01-Practice Session-Coding: Attempt review | REC-CIS - Google Chrome

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```
9      scanf("%d",&d);
10     il=0;
11     while(il<d)
12     {
13         o=1;
14         iq=0;
15         if(il%2==0)
16         {
17             o=0;
18         }
19         while(iq<d)
20         {
21             c='B';
22             if(iq%2==0)
23             {
24                 c='W';
25             }
26             printf("%c",c);
27             iq++;
28         }
29         il+=1;
30         printf("\n");
31     }
32     i=i+1;
33     return 0;
34 }
35 }
```

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

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		BWBWB	BWBWB
		BWBWB	BWBWB
		BWBWB	BWBWB
		BWBWB	BWBWB

Passed all tests! ✓

Question 2
Correct
Marked out of 5.00
[Flag question](#)

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

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REC-CIS

2 W
3 B

Output:

WB
BW
BWB
WBW
BWB

Answer: (penalty regime: 0 %)

```

1 #include<stdio.h>
2 int main()
3 {
4     int t,d,i,il,iq,o,z;
5     char s;
6     scanf("%d",&t);
7     for(i=0;i<t;i++)
8     {
9         scanf("%d %c",&d,&s);
10        for(il=0;il<d;il++)
11        {
12            z=(s=='W'?0:1);
13            o=(il%2==z)?0:1;
14            for(iq=0;iq<d;iq++)
15            {
16                if(iq%2==o) printf("W");
17                else printf("B");
18            }
19            printf("\n");
20        }
21    }
22    return 0;
23 }
```

Week-05-01-Practice Session-Coding: Attempt review | REC-CIS - Google Chrome

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REC-CIS

18
19
20
21
22
23

```

18     }
19     }
20     }
21     }
22     return 0;
23 }
```

	Input	Expected	Got	
✓	2	WB	WB	✓
	2 W	BW	BW	
	3 B	BWB	BWB	
		WBW	WBW	
		BWB	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
***509012

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REC-CIS

***00/

If N= 4, then pattern will be:

```
1020304017018019020
**50607014015016
***809012013
****10011
```

Constraints

$2 \leq N \leq 100$

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

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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

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REC-CIS

Answer: (penalty regime: 0 %)

```
1 #include<stdio.h>
2 int main()
3 {
4     int n,v,p3,c,in,i,il,i2,t,ti;
5     scanf("%d",&t);
6     for(ti=0;ti<t;ti++){
7         v=0;
8         scanf("%d",&n);
9         printf("Case %d\n",ti+1);
10        for(i=0;i<n;i++){
11            c=0;
12            if(i>0){
13                for(il=0;il<i;il++) printf(" ");
14            }
15            for(il=i;il<n;il++){
16                if(i>0) c++;
17                printf("%d0",++v);
18            }
19            if(i==0){
20                p3=v*(v*(v-1))+1;
21                in=p3;
22            }
23            in=in-c;
24            p3=in;
25            for(i2=i;i2<n;i2++){
26                printf("%d",p3++);
27                if(i2==n-1)
28                    printf("0");
29            }
30            printf("\n");
31        }
32    }
33 }
```

Week-05-01-Practice Session-Coding: Attempt review | REC-CIS - Google Chrome

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REC-CIS

```
30     printf("\n");
31 }
32 }
33 }
34 }
```

	Input	Expected	Got	
✓	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! ✓

Finish review

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Duration	18 days 1 hour

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Quiz navigation



Show one page at a time

Finish review

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Question 1
Correct
Marked out of 3.00
Flag question

The k-digit number N is an Armstrong number if and only if the k-th power of each digit sums to N.

Given a positive integer N, return true if and only if it is an Armstrong number.

Example 1:

Input:

153

Output:

true

Week-05-02-Practice Session-Coding: Attempt review | REC-CIS - Google Chrome

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Explanation:

153 is a 3-digit number, and $153 = 1^3 + 5^3 + 3^3$.

Example 2:

Input:

123

Output:

false

Explanation:

123 is a 3-digit number, and $123 \neq 1^3 + 2^3 + 3^3 = 36$.

Example 3:

Input:

1634

Week-05-02-Practice Session-Coding: Attempt review | REC-CIS - Google Chrome

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REC-CIS

Output:

true

Note:

$1 \leq N \leq 10^8$

Answer: (penalty regime: 0 %)

```
1 #include<stdio.h>
2 #include<math.h>
3 int main()
4 {
5     int n;
6     scanf("%d",&n);
7     int n2=n,x=0;
8     while(n2!=0)
9     {
10         x++;
11         n2=n2/10;
12     }
13     int sum=0;
14     int n3=n,n4;
15     while(n3!=0)
16     {
17         n4=n3%10;
18         sum=sum+pow(n4,x);
19         n3=n3/10;
20     }
21     if(n==sum)
```


Week-05-02-Practice Session-Coding: Attempt review | REC-CIS - Google Chrome

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REC-CIS

```
22 { printf("true");
23 }
24
25 else
26 {
27     printf("false");
28 }
29 return 0;
30 }
```

	Input	Expected	Got	
✓	153	true	true	✓
✓	123	false	false	✓

Passed all tests! ✓

Question 2
Correct
Marked out of 5.00
Flag question

Take a number, reverse it and add it to the original number until the obtained number is a palindrome. Constraints $1 \leq \text{num} \leq 99999999$
Sample Input 1 32 Sample Output 1 55 Sample Input 2 789 Sample Output 2 66066

Answer: (penalty regime: 0 %)

```
1 #include<stdio.h>
2 int main()
3 {
4     int rn,n,nt=0,i=0;
5     scanf("%d",&n);
6     do{
7         nt=n;rn=0;
```

Week-05-02-Practice Session-Coding: Attempt review | REC-CIS - Google Chrome

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REC-CIS

```
8 while(n!=0)
9 {
10     rn=rn*10+n%10;
11     n=n/10;
12 }
13 n=nt+rn;
14 i++;
15 }
16 while(rn!=nt||i==1);
17 {
18     printf("%d",rn);
19 }
20 return 0;
21 }
```

	Input	Expected	Got	
✓	32	55	55	✓
✓	789	66066	66066	✓

Passed all tests! ✓

Question 3
Correct
Marked out of 7.00
Flag question

A number is considered lucky if it contains either 3 or 4 or 3 and 4 both in it. Write a program to print the nth lucky number. Example, 1st lucky number is 3, and 2nd lucky number is 4 and 3rd lucky number is 33 and 4th lucky number is 34 and so on. Note that 13, 40 etc., are not lucky as they have other numbers in it.

The program should accept a number 'n' as input and display the nth lucky number as output.

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REC-CIS

Sample Input 1:

3

Sample Output 1:

33

Explanation:

Here the lucky numbers are 3, 4, 33, 34, and the 3rd lucky number is 33.

Sample Input 2:

34

Sample Output 2:

33344

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REC-CIS

Answer: (penalty regime: 0 %)

```
1 #include<stdio.h>
2 int main()
3 {
4     int n=1,i=0,nt,co=0,e;
5     scanf("%d",&e);
6     while(i<e)
7     {
8         nt=n;
9         while(nt!=0)
10        {
11            co=0;
12            if(nt%10!=3 && nt%10!=4)
13            {
14                co=1;
15                break;
16            }
17            nt=nt/10;
18        }
19        if(co==0)
20        {
21            i++;
22        }
23        n++;
24    }
25    printf("%d",--n);
26    return 0;
27 }
```

Week-05-02-Practice Session-Coding: Attempt review | REC-CIS - Google Chrome

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REC-CIS

```
8      nt=n;
9      while(nt!=0)
10     {
11         co=0;
12         if(nt%10!=3 && nt%10!=4)
13         {
14             co=1;
15             break;
16         }
17         nt=nt/10;
18     }
19     if(co==0)
20     {
21         i++;
22     }
23     n++;
24 }
25 printf("%d",--n);
26 return 0;
27 }
```

	Input	Expected	Got	
✓	34	33344	33344	✓

Passed all tests! ✓

Finish review