

ASSIGNMENT-1

By

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Ist

CSE(AI/ML)



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(Permanently Affiliated to the University of Jammu, Accredited by NAAC with “A” Grade)

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Q1 :- Write a C program to print Fibonacci series up to a given number of terms.

```
#include <stdio.h>

void main(){

    int i,n, t1=0, t2=1;

    int nextTerm= t1 + t2;

    printf("Enter number of terms:");

    scanf("%d",&n);

    printf("Fibonacci series: %d, %d,", t1, t2);

    for(i=3; i<=n; ++i){

        printf("%d,",nextTerm);

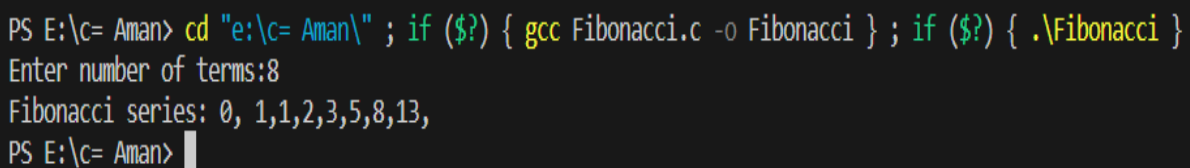
        t1= t2;

        t2= nextTerm;

        nextTerm= t1+t2;

    }

}
```



```
PS E:\c= Aman> cd "e:\c= Aman\" ; if ($?) { gcc Fibonacci.c -o Fibonacci } ; if ($?) { .\Fibonacci }
Enter number of terms:8
Fibonacci series: 0, 1,1,2,3,5,8,13,
PS E:\c= Aman> █
```

Q2 :- There are three piles of stones. The first pile contains a stones, the second pile contains b stones and the third pile contains c stones. You must choose one of the piles and split the stones from it to the other two piles; specifically, if the chosen pile initially contained s stones, you should choose an integer k ($0 \leq k \leq s$), move k stones from the chosen pile onto one of the remaining two piles and s-k stones onto the other remaining pile. Determine if it is possible for the two remaining piles (in any order) to contain x stones and y stones respectively after performing this action.

```
#include <stdio.h>
```

```

int main() {

    int t;

    printf("Enter the number of test cases: ");

    scanf("%d", &t);

    while (t--) {

        int a, b, c, x, y;

        printf("Enter a, b, c, x, y for test case (separated by space): ");

        scanf("%d %d %d %d %d", &a, &b, &c, &x, &y);

        if ((a + b + c == x + y) && (a >= x && b >= x || a >= y && c >= y || b >= x && c >= y)) {

            printf("Yes\n");

        } else {

            printf("No\n");

        }

    }

    return 0;

}

```

```

PS E:\c= Aman> cd "e:\c= Aman\" ; if ($?) { gcc Question2.c -o Question2 } ; if ($?) { .\Question2 }
Enter the number of test cases: 4
Enter a, b, c, x, y for test case (separated by space): 1 2 3 2 3
No
Enter a, b, c, x, y for test case (separated by space): 3 2 5 2 5
No
Enter a, b, c, x, y for test case (separated by space): 6 5 2 5 2
No
Enter a, b, c, x, y for test case (separated by space): 2 4 2 6 2
Yes
PS E:\c= Aman> █

```

