PROGRAM 1- FIBONACCI SERIES WITH AND WITHOUT RECURSION

#include<stdio.h>

void fibbonacci(int n);

void withoutrecurssion();

int a=0;

int b=1;

void withoutrecurssion(){

int x;

int A=0;

int B=1;

printf("fibonacci upto n without recursion=\n");

scanf("%d",&x);

printf("%d ",A);

printf("%d ",B);

for (size\_t i = 0; i <=x-2; i++)

{

int result=A+B;

A=B;

B=result;

printf("%d ",result);

}

}

void fibbonacci(int n){

if (n==0)

{

return ;

}

else{

printf("%d \t",a);

int result=a+b;

a=b;

b=result;

fibbonacci(n-1);}

}

void main()

{

int number;

printf("press 1.fibbonacci with recursion \n 2.Without recursion:\n");

scanf("%d ",&number);

int a;

switch (number)

{

case 1:

printf("fibonnacci upto n =");

scanf("%d",&a);

fibbonacci(a);

break;

case 2:

withoutrecurssion();

break;

default:

printf("enter valid number ");}

}