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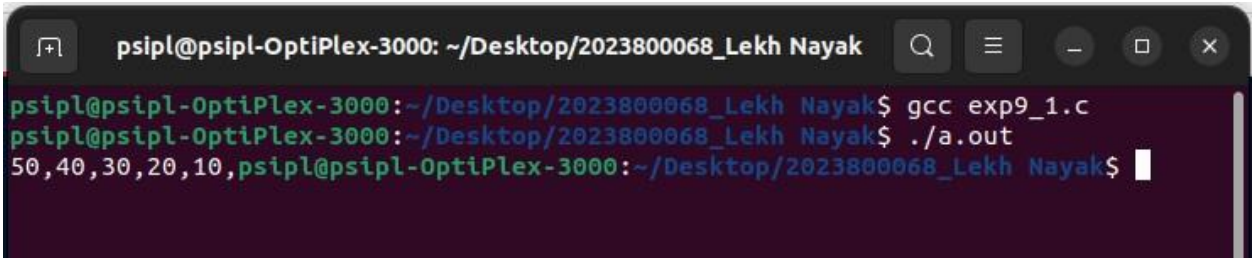
Experiment No.	9

AIM:	**Demonstrate the use of pointers to solve a given problem.**
Program 1	
PROBLEM STATEMENT :	Write a program to reverse the position of all elements in the array using pointers.

PROGRAM:	#include<stdio.h>
	
	void reverse_arr(int n, int a[]){
	
	for(int i=0; i<n/2; i++){
	int temp=*(a+i);
	*(a+i) = *(a+n-1-i);
	*(a+n-1-i)= temp;
	}
	}
	
	void print_arr(int n, int a[])
	{
	for(int i=0; i<n; i++){
	printf("%d,", *(a+i));
	}
	}
	
	int main(){
	
	int a[] = {10,20,30,40,50};
	reverse_arr(5,a);
	print_arr(5,a);
	return 0;
	}

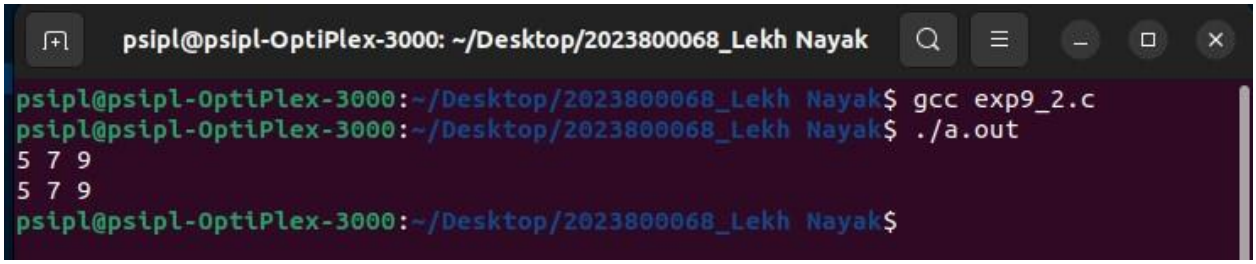
RESULT:



Program 2	
PROBLEM STATEMENT :	Write a program to perform matrix addition using pointers.

PROGRAM:	#include<stdio.h>
	
	void mat_add(int m, int n, int mat1[][n], int mat2[][n], int res[][n]){
	
	for(int i=0; i<m; i++)
	for(int j=0;j<n;j++)
	((res+i)+j) = *(*(mat1+i)+j)+*(*(mat2+i)+j);
	}
	
	void mat_print(int m, int n, int mat[][n]){
	
	for(int i=0; i<m; i++){
	for(int j=0;j<n;j++)
	printf("%d ", *(*(mat+i)+j));
	printf("\n");
	}
	}
	
	int main(){
	
	int a[][3] = {{1,2,3}, {4,5,6}};
	int b[][3] = {{4,5,6}, {1,2,3}};
	int c[2][3];
	mat_add(2,3,a,b,c);
	mat_print(2,3,c);
	
	return 0;
	}

RESULT:



CONCLUSION:	**In this experiment I learnt about the use of pointers to solve a given problem**