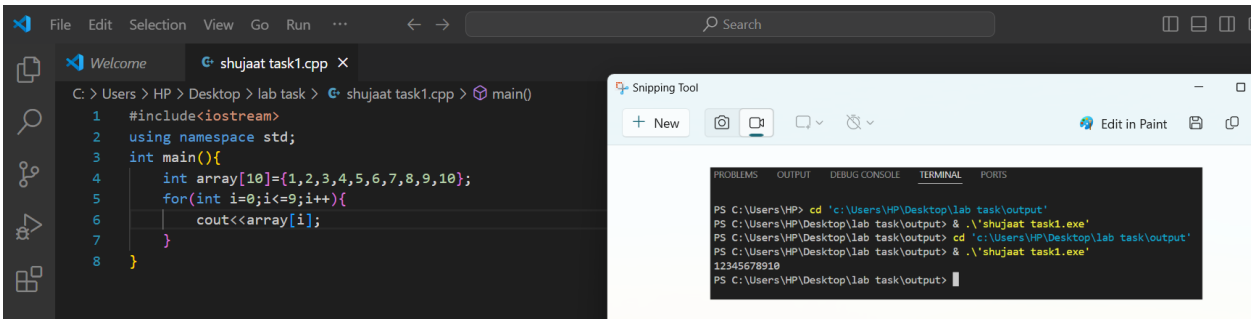
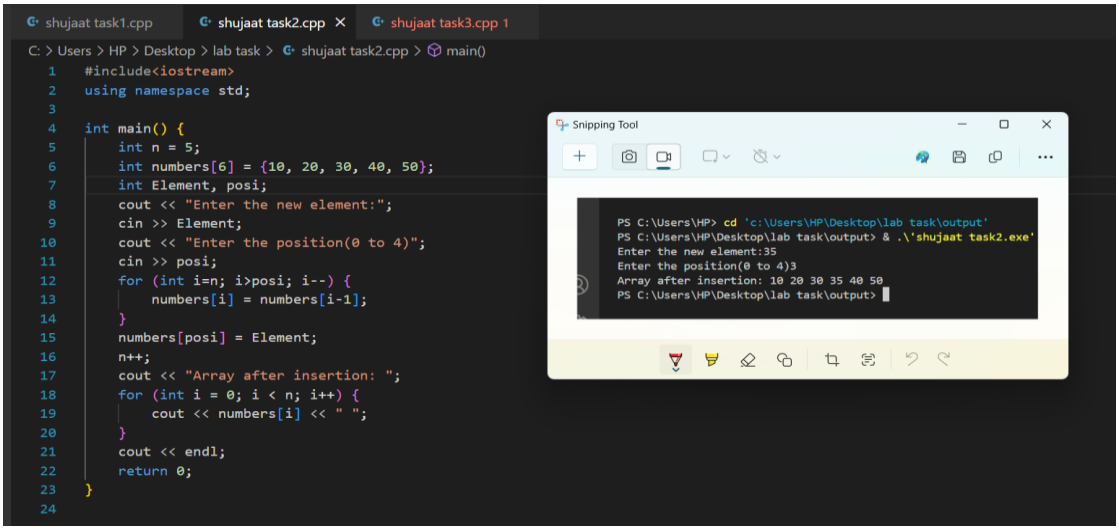
Name	Shujaat hussain
Sap	55405
section	SE_3-2

Task 1:

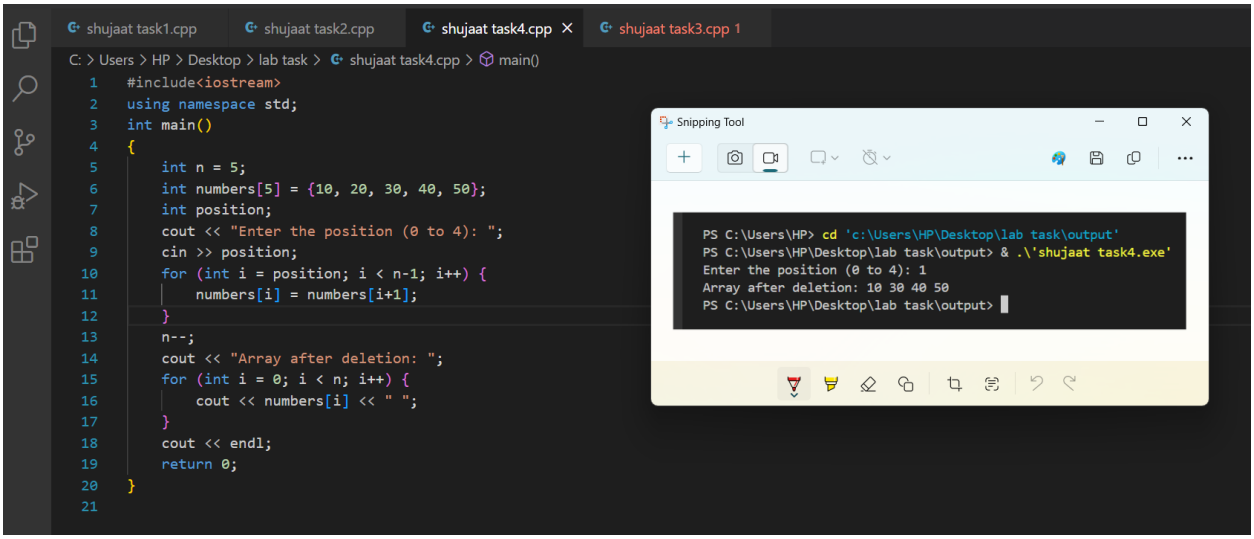


Task 2:

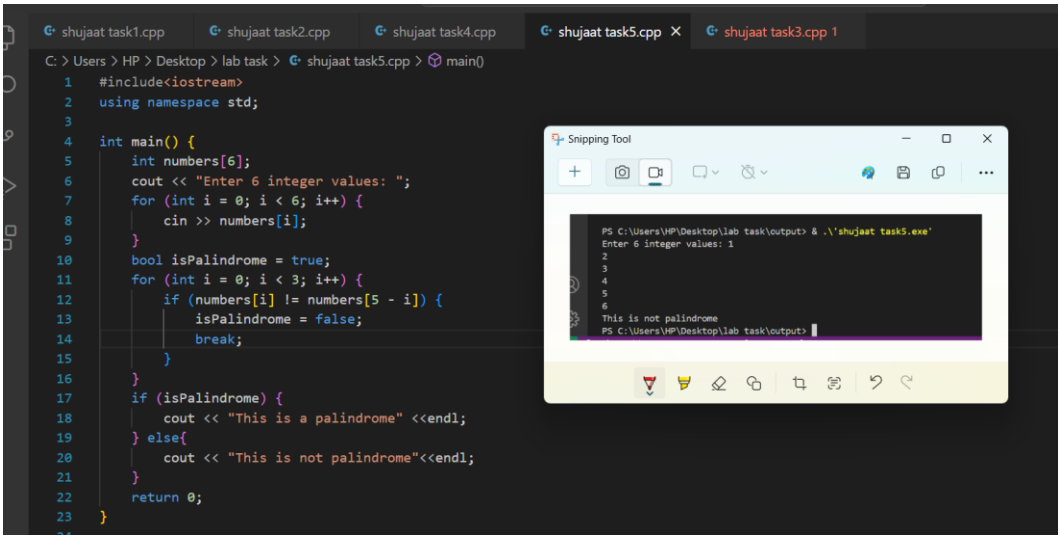
Task 3:


shujaat task1.cpp
shujaat task2.cpp
shujaat task3.cpp 1
C: > Users > HP > Desktop > lab task > shujaat task2.cpp > main()
#include<iostream>
using namespace std;
int main() {
int n = 5;
int numbers[6] = {10, 20, 30, 40, 50};
int Element, posi;
cout << "Enter the new element:";
cin >> Element;
cout << "Enter the position(0 to 4)";
cin >> posi;
for (int i=n; i>posi; i--) {
numbers[i] = numbers[i-1];
}
numbers[posi] = Element;
n++;
cout << "Array after insertion: ";
for (int i = 0; i < n; i++) {
cout << numbers[i] << " ";
}
cout << endl;
return 0;
}
Snipping Tool
PS C:\Users\HP> cd 'c:\Users\HP\Desktop\lab task\output'
PS C:\Users\HP\Desktop\lab task\output> & .\'shujaat task2.exe'
Enter the new element:35
Enter the position(0 to 4)3
Array after insertion: 10 20 30 35 40 50
PS C:\Users\HP\Desktop\lab task\output>

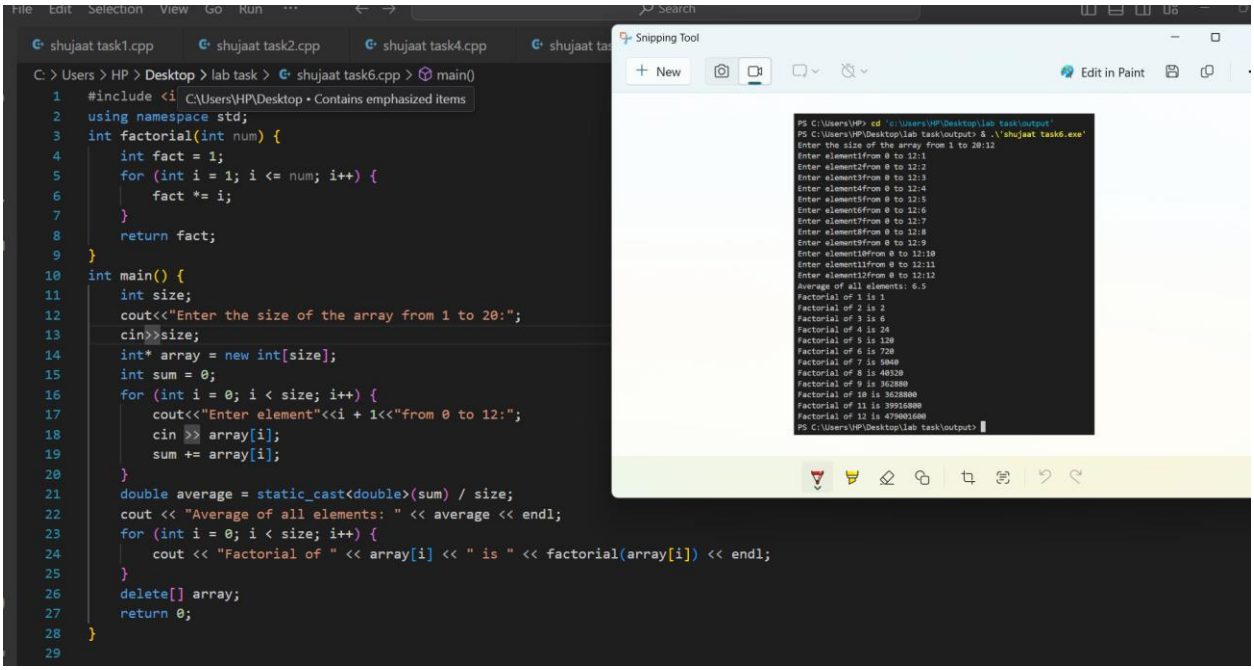
Task 4:


shujaat task1.cpp
shujaat task2.cpp
shujaat task4.cpp
shujaat task3.cpp 1
C: > Users > HP > Desktop > lab task > shujaat task4.cpp > main()
#include<iostream>
using namespace std;
int main()
{
int n = 5;
int numbers[5] = {10, 20, 30, 40, 50};
int position;
cout << "Enter the position (0 to 4): ";
cin >> position;
for (int i = position; i < n-1; i++) {
numbers[i] = numbers[i+1];
}
n--;
cout << "Array after deletion: ";
for (int i = 0; i < n; i++) {
cout << numbers[i] << " ";
}
cout << endl;
return 0;
}
Snipping Tool
PS C:\Users\HP> cd 'c:\Users\HP\Desktop\lab task\output'
PS C:\Users\HP\Desktop\lab task\output> & .\'shujaat task4.exe'
Enter the position (0 to 4): 1
Array after deletion: 10 30 40 50
PS C:\Users\HP\Desktop\lab task\output>

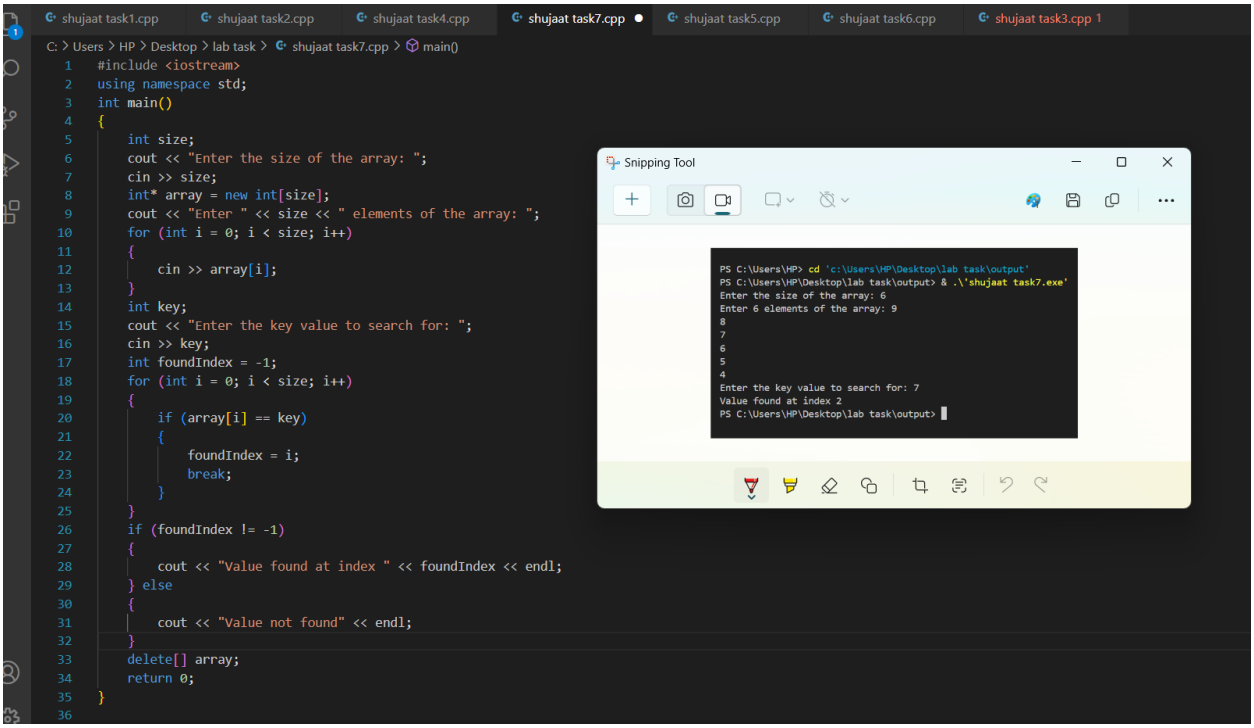
Task 5:


shujaat task1.cpp
shujaat task2.cpp
shujaat task4.cpp
shujaat task5.cpp
shujaat task3.cpp 1
C: > Users > HP > Desktop > lab task > shujaat task5.cpp > main()
#include<iostream>
using namespace std;
int main() {
int numbers[6];
cout << "Enter 6 integer values: ";
for (int i = 0; i < 6; i++) {
cin >> numbers[i];
}
bool isPalindrome = true;
for (int i = 0; i < 3; i++) {
if (numbers[i] != numbers[5 - i]) {
isPalindrome = false;
break;
}
}
if (isPalindrome) {
cout << "This is a palindrome" <<endl;
} else{
cout << "This is not palindrome"<<endl;
}
return 0;
}
Snipping Tool
PS C:\Users\HP\Desktop\lab task\output> & .\'shujaat task5.exe'
Enter 6 integer values: 1
2
3
4
5
6
This is not palindrome
PS C:\Users\HP\Desktop\lab task\output>

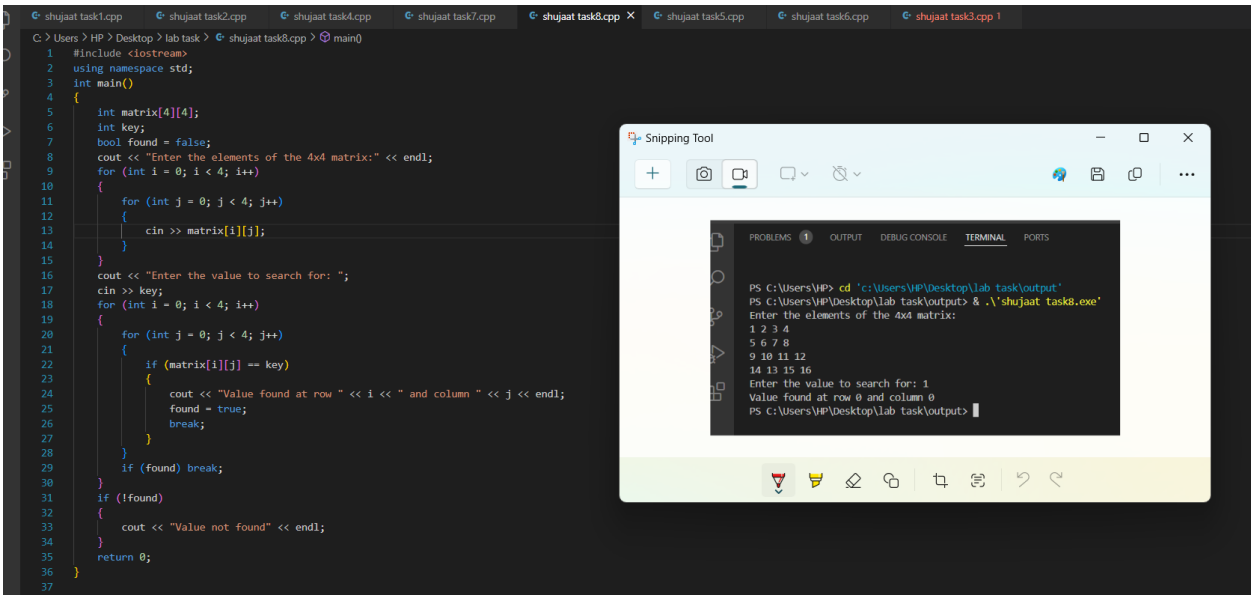
Task 6:


shujaat task1.cpp
shujaat task2.cpp
shujaat task4.cpp
C: > Users > HP > Desktop > lab task > shujaat task6.cpp > main()
C:\Users\HP\Desktop • Contains emphasized items
#include <i
using namespace std;
int factorial(int num) {
int fact = 1;
for (int i = 1; i <= num; i++) {
fact *= i;
}
return fact;
}
int main() {
int size;
cout<<"Enter the size of the array from 1 to 20:";
cin>>size;
int* array = new int[size];
int sum = 0;
for (int i = 0; i < size; i++) {
cout<<"Enter element"<<i + 1<<"from 0 to 12:";
cin >> array[i];
sum += array[i];
}
double average = static_cast<double>(sum) / size;
cout << "Average of all elements: " << average << endl;
for (int i = 0; i < size; i++) {
cout << "Factorial of " << array[i] << " is " << factorial(array[i]) << endl;
}
delete[] array;
return 0;
}
Snipping Tool
New
Edit in Paint
PS C:\Users\HP> cd 'c:\Users\HP\Desktop\lab task\output'
PS C:\Users\HP\Desktop\lab task\output> & .\'shujaat task6.exe'
Enter the size of the array from 1 to 20:12
Enter element1from 0 to 12:1
Enter element2from 0 to 12:2
Enter element3from 0 to 12:3
Enter element4from 0 to 12:4
Enter element5from 0 to 12:5
Enter element6from 0 to 12:6
Enter element7from 0 to 12:7
Enter element8from 0 to 12:8
Enter element9from 0 to 12:9
Enter element10from 0 to 12:10
Enter element11from 0 to 12:11
Enter element12from 0 to 12:12
Average of all elements: 6.5
Factorial of 1 is 1
Factorial of 2 is 2
Factorial of 3 is 6
Factorial of 4 is 24
Factorial of 5 is 120
Factorial of 6 is 720
Factorial of 7 is 5040
Factorial of 8 is 40320
Factorial of 9 is 362880
Factorial of 10 is 3628800
Factorial of 11 is 39916800
Factorial of 12 is 479001600
PS C:\Users\HP\Desktop\lab task\output>

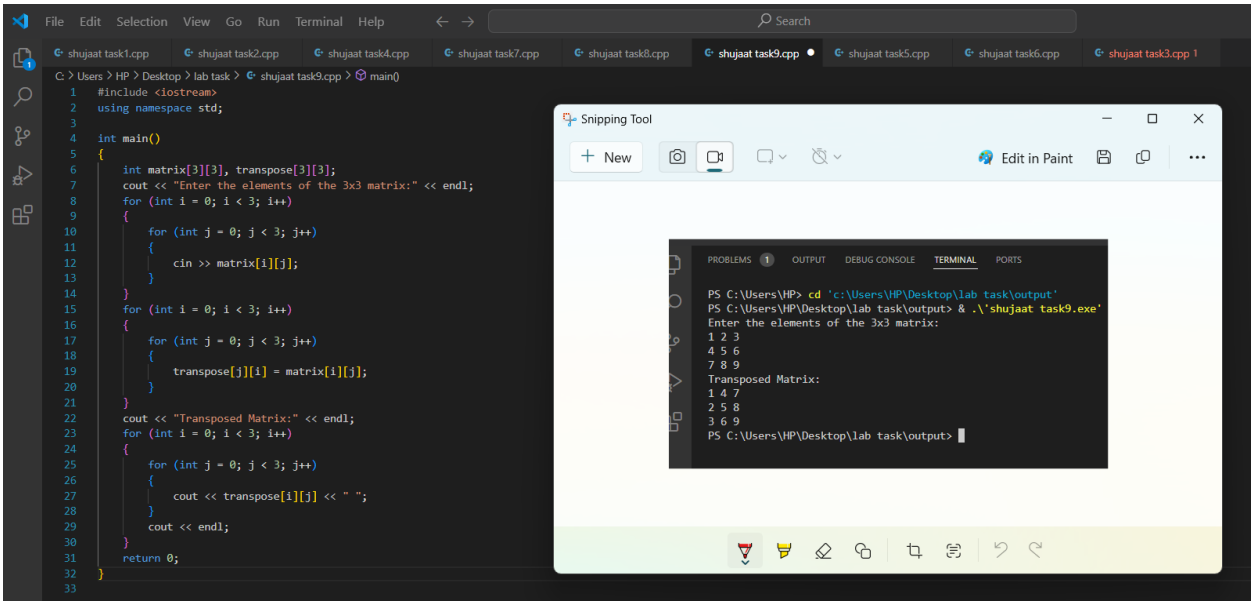
Task 7:



Task 8:



Task 9:


File Edit Selection View Go Run Terminal Help
Search
shujaat task1.cpp
shujaat task2.cpp
shujaat task4.cpp
shujaat task7.cpp
shujaat task8.cpp
shujaat task9.cpp
shujaat task5.cpp
shujaat task6.cpp
shujaat task3.cpp 1
C > Users > HP > Desktop > lab task > shujaat task9.cpp > main()
#include <iostream>
using namespace std;
int main()
{
int matrix[3][3], transpose[3][3];
cout << "Enter the elements of the 3x3 matrix:" << endl;
for (int i = 0; i < 3; i++)
{
for (int j = 0; j < 3; j++)
{
cin >> matrix[i][j];
}
}
for (int i = 0; i < 3; i++)
{
for (int j = 0; j < 3; j++)
{
transpose[j][i] = matrix[i][j];
}
}
cout << "Transposed Matrix:" << endl;
for (int i = 0; i < 3; i++)
{
for (int j = 0; j < 3; j++)
{
cout << transpose[i][j] << " ";
}
cout << endl;
}
return 0;
}
Snipping Tool
New
Edit in Paint
PROBLEMS 1
OUTPUT
DEBUG CONSOLE
TERMINAL
PORTS
PS C:\Users\HP> cd 'c:\Users\HP\Desktop\lab task\output'
PS C:\Users\HP\Desktop\lab task\output> & .\'shujaat task9.exe'
Enter the elements of the 3x3 matrix:
1 2 3
4 5 6
7 8 9
Transposed Matrix:
1 4 7
2 5 8
3 6 9
PS C:\Users\HP\Desktop\lab task\output>