**Task no:1**

#include<iostream>

using namespace std;

int main()

{

int size;

cout<<"Enter the size of an Array :";

cin>>size;

int arr[size]={};

for(int i=0;i<size;i++){

cout<<"Enter value to store in array"<<i<<":";

cin>>arr[i];

}

for(int j=0;j<size;j++){

cout<<arr[j]<<endl;

}

}

**Task no:2**

#include <iostream>

using namespace std;

int main()

{

const int NUM\_STUDENTS = 10;

int hoursStudied[NUM\_STUDENTS];

cout << "Enter hours studied by each student:\n";

for (int i = 0;i < NUM\_STUDENTS; i++) {

cout << "Student " << (i + 1) << ": ";

cin >> hoursStudied[i];

}

cout << "\nHours Studied by Each Student:\n";

for (int i = 0; i < NUM\_STUDENTS; i++) {

cout << "Student " << (i + 1) << ": " << hoursStudied[i] << " hours\n";

}

int maxHours = hoursStudied[0];

int maxStudent = 1;

for (int i = 1; i < NUM\_STUDENTS; i++) {

if (hoursStudied[i] > maxHours) {

maxHours = hoursStudied[i];

maxStudent = i + 1;

}

}

}

**Task no:3**

using namespace std;

#include <iostream>

int main() {

const int SIZE

= 7;

int numbers[SIZE];

int countMultiples = 0;

cout << "Enter seven integers:" << std::endl;

for (int i = 0; i < SIZE; i++) {

cout << "Number " << (i + 1) << ": ";

cin >> numbers[i];

}

for (int i = 0; i < SIZE; i++) {

if (numbers[i] % 5 == 0) {

countMultiples++;

}

}

cout << "\nNumber of integers that are multiples of five: " << countMultiples <<endl;

return 0;

}

Task no:4

#include <iostream>

using namespace std;

int main() {

const int SIZE = 10;

int numbers[SIZE];

cout<< "Enter 10 numbers:" <<endl;

for (int i = 0; i < SIZE; i++) {

cout << "Number " << (i + 1) << ": ";

cin >> numbers[i];

}

cout << "\nArray in Reverse Order:" <<endl;

for (int i = SIZE - 1; i >= 0; i--) {

cout << numbers[i] << " ";

}

return 0;

}

**Task no:4**

using namespace std;

int main() {

const int SIZE = 10;

int numbers[SIZE];

cout << "Please enter 10 integers:" << endl;

for (int i = 0; i < SIZE; i++) {

cout << "Enter integer " << i + 1 << ": ";

cin >> numbers[i];

}

cout << "\nArray in reverse order:" << endl;

for (int i = SIZE - 1; i >= 0; i--) {

cout << numbers[i] << " ";

}

cout << endl;

return 0;

}

**Task no:5**

#include <iostream>

using namespace std;

int main() {

const int SIZE = 10;

int numbers[SIZE];

int positive = 0, negative = 0, odd = 0, even = 0, zero = 0;

// Ask user to input ten numbers

cout << "Enter 10 integers:";

for (int i = 0; i < SIZE; i++) {

cin >> numbers[i];

// Count numbers based on conditions

if (numbers[i] > 0) {

positive++;

} else if (numbers[i] < 0) {

negative++;

}

if (numbers[i] % 2 == 0 && numbers[i]!= 0) {

even++;

} else if (numbers[i] != 0) {

odd++;

}

if (numbers[i] == 0) {

zero++;

}

} // Print results

cout << "Results:";

cout << "Number of positive numbers: " << positive;

cout << "Number of negative numbers: " << negative ;

cout << "Number of odd numbers: " << odd;

cout << "Number of even numbers: " << even;

cout << "Number of zeros: " << zero;

return 0;

}