Q4

#include<iostream>

#include<iomanip>

using namespace std;

int main(){

int r,c,m,n;

cout<<"enter m & n";

cin>>m>>n;

int arr[m][n];

cout<<"Enter 2 D array values \n";

for(r=0;r<m;r++){

{

for(c=0;c<n;c++){

cin>>arr[r][c];

}

}

}

for(c=0;c<m;c++){

{

for(r=0;r<n;r++){

cout<<setw(3)<<left<<arr[r][c];

}

cout<<endl;

}

}

return 0;

}

Q1

#include<iostream>

using namespace std;

int n;

void factor(int n){

cout<<"Factors of "<<n<<" are : ";

for(int i=1;i<=n;i++){

if(n%i==0)

cout<<i<<endl;

}

}

int main(){

int n,c=0;

cout<<"Enter the number : ";

cin>>n;

for(int i=1;i<=n;i++)

{

if(n%i==0)

c++;

}

if(c==2){

cout<<"This is a prime number ";

}else

cout<<"This is not prime";

factor(n);

return 0;

}

Q2)

#include<iostream>

using namespace std;

int main(){

int n;

cout<<"Enter n numbers : ";

cin>>n;

int arr[n];

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

cin>>arr[i];

cout<"Reverse arrays :";

}

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

cout<<arr[i]<<endl;

}

return 0;

}

Q-3)

#include <iostream>

#include <string>

using namespace std;

bool isPalindrome(string str) {

int left = 0, right = str.length() - 1;

while (left < right) {

// Skip spaces on the left and right

if (str[left] == ' ') {

left++;

continue;

}

if (str[right] == ' ') {

right--;

continue;

}

// Compare characters while ignoring case sensitivity

if (str[left] != str[right] && (str[left] + 32 != str[right] && str[left] - 32 != str[right])) {

return false;

}

left++;

right--;

}

return true;

}

int main() {

string userInput;

cout << "Enter a string: ";

getline(cin, userInput);

if (isPalindrome(userInput)) {

cout << "The string is a palindrome." << endl;

} else {

cout << "The string is not a palindrome." << endl;

}

return 0;

}