**NAME: BIBEK DHUNGANA**

**OUTPUT**

Text

Description automatically generated

**CODE**

**//including all the required libararies**

**#include <iostream>**

**using namespace std;**

**//declaring all the function prototype**

**void printHelloWorld();**

**void averageTwoNumber();**

**int sumInteger(int);**

**int factorial(int);**

**double arraySum();**

**int main(){**

**//call printHelloWorld Function**

**cout << endl;**

**printHelloWorld();**

**cout << "\n" << endl;**

**//calling the function averageTwoNumber**

**averageTwoNumber();**

**cout << "\n" << endl;**

**//calling sumInteger function**

**int inputForSum;**

**cout << "Enter the number upto which you want to compute sum:";**

**cin >> inputForSum;**

**cout << "The sum of all whole number is " << sumInteger(inputForSum) << "\n\n";**

**//calling factorial Function**

**int num;**

**cout << "Enter the number to calculate factorial of:";**

**cin >> num;**

**cout << "The factorial of number " << num << " is " << factorial(num) << "\n\n";**

**//calling the printArraySum Function**

**double result = arraySum();**

**cout << "The sum of element in the array is " << result << "\n\n";**

**return 0;**

**}**

**/\***

**NAME: printHelloWorld**

**INPUT: void**

**RETURN TYPE: void**

**DESCRIPTION: This function print Hello, World! to the console.**

**\*/**

**void printHelloWorld(){**

**cout << "Hello, World!" << endl;**

**}**

**/\***

**NAME: averageTwoNumber**

**INPUT: void**

**RETURN TYPE: void**

**DESCRIPTION: This function take two input from the user and print average of these two numbers.**

**\*/**

**void averageTwoNumber(){**

**double num1,num2,average;**

**//asking input from the user**

**cout << "Enter first number:";**

**cin >> num1;**

**//asking input from the user**

**cout << "Enter second number:";**

**cin >> num2;**

**//calculating and printing the average**

**cout << "The average of "<< num1 << " and " << num2 << " is " << (num1+num2)/2 << endl;**

**}**

**/\***

**NAME:sumInteger**

**INPUT:int**

**RETURN TYPE:int**

**DESCRIPTION: This function ask for the input and find the sum upto that number**

**\*/**

**int sumInteger(int num){**

**int sum = 0;**

**for(int i = 0; i <= num; i++){**

**sum = sum + i;**

**}**

**return sum;**

**}**

**/\***

**NAME:factorial**

**INPUT:void**

**RETURN TYPE: input**

**DESCRIPTION: This function ask the user for the input and calculate the factorial.**

**\*/**

**int factorial(int num){**

**int result = 1;**

**//calculating the factorial**

**for(int i = 1; i <= num; i++){**

**result = result \* i;**

**}**

**return result;**

**}**

**/\***

**NAME:printArraySum**

**INPUT:void**

**RETURN TYPE:void**

**DESCRIPTION: This function ask user to enter 5 number separated by space, store it in array and**

**print the sum of the array.**

**\*/**

**double arraySum(){**

**double num[5];**

**double sum = 0.0;**

**//asking for input.**

**cout << "Enter five number:";**

**for(int i = 0; i < 5; ++i){**

**cin >> num[i];**

**}**

**//calculating the sum**

**for(int i = 0; i < 5; ++i){**

**sum = sum + num[i];**

**}**

**return sum;**

**}**