Nicholas Weekes

02-11-20

CS 325

**LAB 3**

1. **Write a program that calculates the sum of 45, 18 and 34; and then, stores it in memory address 100.**

#include<iostream>

#include<cmath>

#include<string>

using namespace std;

int main () {

int \*ptr, val = 100; // Pointer assigned address value

int X = 45; // initialize the first variable

int Y = 18; // initialize the second variable

int Z = 34; // initialize the third variable

int sum = X + Y + Z; // Calculate all three values

ptr = &val;

cout << " The resulting sum is: " << sum<<" and is stored at RAM:" << ptr << endl;

return 0;

}

1. **Write a program that calculates the expression 78 − 32 \* 2; and then, stores the result in memory address 89.**

#include<iostream>

#include<cmath>

using namespace std;

int main ( ) {

int \*ptr, var = 89; // Pointer initializer to value

int num1 = 78; //initializer of number 1

int num2 = 32; //initializer of number 2

int num3 = 2; // initializer of number 3

int sol = num1 - num2 \* num3; // calculation stage

ptr = &var; // pointer addressing the result to assigned location

cout << " Your Solution is: " << sol << " it is stored in Memory Address:" << ptr << endl;

return 0;

}

1. **Write a program that calculates the consecutive sum from one to the number stores in memory address 82; and then, stores the result in memory address 143.**

#include <iostream>

using namespace std;

int main ()

{

int \*p, var1 = 142;

int \*q, var2 = 82;

int n=0;

int i=0;

p = &var1;

q = &var2;

cout<<"Enter the number to calculate sum: ";

cin>>n;

int sum=0;

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

{

sum=sum+i;

}

cout<<"Enter the number to calculate sum: ";

cin>>i;

cout<<"The Sum is: "<<sum<< " it is stored at M.A. " << p <<endl;

cout<<"The Sum is: "<<sum<< " it is stored at M.AD. " << q <<endl;

return 0;

}