**Tutorial 5**

1. **Trace the following:**
2. int main ()

{

int firstvalue = 5, secondvalue = 15;

int \* p1, \* p2;

p1 = &firstvalue;

p2 = &secondvalue;

\*p1 = 10;

\*p2 = \*p1;

p1 = p2;

\*p1 = 20;

cout << "firstvalue is " << firstvalue << endl;

cout << "secondvalue is " << secondvalue << endl;

return 0;

}

#include <iostream>

using namespace std;

int main ()

{

int numbers[5];

int \* p;

p = numbers; \*p = 10;

p++; \*p = 20;

p = &numbers[2]; \*p = 30;

p = numbers + 3; \*p = 40;

p = numbers; \*(p+4) = 50;

for (int n=0; n<5; n++)

cout << numbers[n] << ", ";

return 0;

}

#include <iostream>

using namespace std;

int main ()

{

int anArray[5] = { 9, 7, 5, 3, 1 };

cout << \*(anArray+1) << endl;

system("pause");

return 0;

}

1. #include <iostream>

using namespace std;

void Deposit(int s, int p);

int main()

{

int shirts = 3, pants = 5;

cout << "When starting, within main():\n";

cout << "\tShirts = " << shirts << endl;

cout << "\tPants = " << pants << endl;

Deposit(Shirts, Pants);

cout << "\n\nAfter calling Deposit(), within main():\n";

cout << "\tShirts = " << shirts << endl;

cout << "\tPants = " << pants << endl;

cout << endl;

return 0;

}

void Deposit(int s, int p)

{

s = 8;

p = 12;

cout << "Within Deposit()" << "\n\tShirts = " << s << "\n\tPants = " << p;

}

1. **Find the errors:**

#include <iostream>

using namespace std;

int main(){

int nValue = 5;

double dValue = 7.0;

int \*pnPtr = &nValue; // ….

double \*pdPtr = &dValue; // ….

pnPtr = &dValue; // ……..

pdPtr = &nValue; //………

system("pause");

}

1. **Create a dynamic variable to the following class using the pointer then try to set the class members to 10 and ‘b’ respectively.**

class MyClass

{

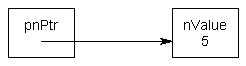
public:

int m\_Number;

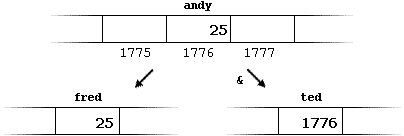
char m\_Character;

};

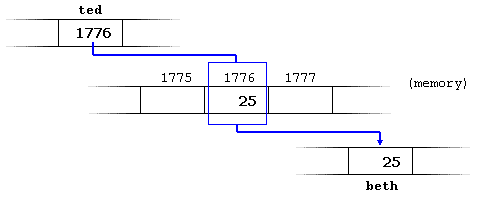
1. **Write the code fragment** 
   1. Create pointer p to an array of string a
   2. How to access the first element of array using the pointer
   3. How to change the pointer address to be pointed to the second element of the array a.
2. **Write a code fragment**



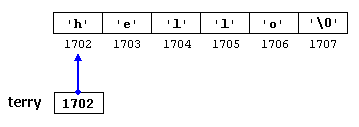












1. **Show the difference between the following programs:**

//Program l:

include <iostream>

using namespace std;

int \*pPointer;

void SomeFunction();

{

int nNumber;

nNumber = 25;

pPointer = &nNumber;

}

void main()

{

SomeFunction();

Cout<<" Value of \*pPointer: "<< \*pPointer;

}

//program 2

include <iostream>

using namespace std;

int \*pPointer;

void SomeFunction()

{

pPointer = new int;

\*pPointer = 25;

}

void main()

{

SomeFunction();

Cout<<" Value of \*pPointer: "<< \*pPointer;

}