A drawing of a person

Description automatically generated

Lab 02

C++ for Programmers

Parth Jasmin Madhani | 101901858 | 12/02/2019

# In this lab..

* Revised C++ concepts by finding resources for c++ online.
* Decided to use visual studio as IDE.
* Made a demo program based on the concepts provided in task.

# Resources for c++

### Quick Reference sheet for c++

* <https://web.pa.msu.edu/people/duxbury/courses/phy480/Cpp_refcard.pdf>

The above page covers briefly all the concepts of c++ and really helps one revise c++ .

### Keyboard Shortcut for visual studio 2017

* <http://visualstudioshortcuts.com/2017/>

It provides all the keyboard shortcuts for visual studio.

### Online tool to test code

* <https://www.onlinegdb.com/online_c++_compiler>

# Demo Program

#include <iostream>

#include <cstdlib>

#include <ctime>

#include <string>

using namespace std;

class ASquare {

public:

double Area;

void area();

void setlength(double wid);

double getlength(void);

private:

double length;

};

void ASquare::area() {

Area = length \* length;

cout << "The area of square is" << Area ;

}

double ASquare::getlength(void) {

return length;

}

void ASquare::setlength(double len) {

length = len;

}

void populateArray()

{

srand(time(nullptr));

const int ARRAY\_SIZE = 5;

int ar[ARRAY\_SIZE] = { 0 };

for (int i = 0; i < 5; ++i) ar[i] = rand() % 50 + 1;

cout << "\nArray Values are : ";

for (int v : ar) cout << v << ' ' ;

}

void removeDupWord(string str)

{

string word = "";

for (auto x : str)

{

if (x == ' ')

{

cout << word << "\n";

word = "";

}

else

{

word = word + x;

}

}

cout << word << endl;

}

void printmessage(int a,int b)

{

cout << a <<"\n" << b <<"\n";

}

int alteredmessage(int a)

{

return a \* 2;

}

void oddnumbers()

{

cout << "Odd numbers list: ";

for (int i = 0; i < 20; i++)

{

if (i % 2 != 0)

{

cout <<i<< " ";

}

}

}

int main()

{

int value;

string str = "this has spaces in it";

int \*mypointer;

mypointer = &value;

\*mypointer = 10;

cout << "value is " << value << '\n';

printmessage(2,3);

cout << alteredmessage(2) <<"\n";

oddnumbers();

populateArray();

removeDupWord(str);

ASquare square;

square.setlength(10.0);

cout << "length of square : " << square.getlength() << endl;

square.area();

return 0;

}