UTM

UNIVERSITI TEKNOLOGI MALAYSIA

FACULTY OF COMPUTING

SEMESTER 1 2023/2024

SECJ1013 – PROGRAMMING TECHNIQUE 1

SECTION 3

LAB EXERCISE 2

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```
//Chua Jia Lin A23CS0069
#include <iostream>
#include <cmath>
#include <cstring>
using namespace std;
double distance (int x1, int y1, int x2, int y2);
int main(){
   int x1=1, y1=3, x2=2, y2=6, x3=5, y3=4;
   char coordinate[31];
   char coordinateA[10] ="A(1, 3), ";
   char coordinateB[14] ="B(2, 6), and ";
   char coordinateC[10] ="C(5, 4)";
   strcpy(coordinate, coordinateA);
   strcat(coordinate, coordinateB);
   strcat(coordinate, coordinateC);
   cout<<coordinate<<endl;

   for (int i=0; i<4; i++){
      switch (i){
         case 0: cout<<"\tx\ty"<<endl;
         break;
         case 1: cout<<"A\t"<<x1<<"\t"<<y1<<endl;
         break;
         case 2: cout<<"B\t"<<x2<<"\t"<<y2<<endl;
         break;
         case 3: cout<<"C\t"<<x3<<"\t"<<y3<<endl;
         break;
         default: break;
      }
   }

   cout<<"AB = "<<distance(x1,y1,x2,y2)<<endl;
   cout<<"AC = "<<distance(x1,y1,x3,y3)<<endl;
   cout<<"BC = "<<distance(x2,y2,x3,y3)<<endl;

   system ("pause");
   return 0;
}
```

```
double distance(int x1,int y1, int x2, int y2){
   return sqrt(pow((x2-x1),2)+pow((y2-y1),2));
}
```

Output: