```c
#include <stdio.h>
#include <math.h>

//Outer structure line
struct line
{
    //variables
    float midpoint[2];
    float slope;
    float distance;
    float intercept;

    //Inner structure point
    struct point
    {
        //variables
        float x;
        float y;
    }point1, point2; //variable names for the structure point
};

//function declarations
float solveSlope(struct line line1);
void solveMidpoint(struct line line1);
float solveDistance(struct line line1);
float getSlopeInterceptForm(struct line line1);

int main()
{
    //declaration of variable line1
    struct line line1;
    //User input
    printf("Enter x and y for point 1:\n");
    scanf("%f%f", &line1.point1.x, &line1.point1.y); //Access the variables inside the structure

    printf("Enter x and y for point 2:\n");
    scanf("%f%f", &line1.point2.x, &line1.point2.y); //Access the variables inside the structure

    printf("\nSlope: %f", solveSlope(line1)); //calls the function solveSlope
    printf("\nMidpoints: ");
    solveMidpoint(line1); //calls the function solveMidpoint
    printf("\nDistance between two points: %f", solveDistance(line1)); //calls the function solveDistance
    printf("\ny = %fx + %f\n", solveSlope(line1), getSlopeInterceptForm(line1)); //calls the function solveSlope and getSlopeInterceptForm
                                                                                  //which are essential to the printing of the slope intercept form
    return 0;
}

//Functions
float solveSlope(struct line line1){
    //Access the variables in the structure then solve and stores it into the slope variable in the structure for line1
    line1.slope = (line1.point2.y - line1.point1.y)/(line1.point2.x - line1.point1.x);
    return line1.slope; //returns the value
}

void solveMidpoint(struct line line1){
    //Access the variables in the structure then solve and stores it into the midpoint array variable in the structure for line1
    line1.midpoint[0] = (line1.point1.x + line1.point2.x)/2;
    line1.midpoint[1] = (line1.point1.y + line1.point2.y)/2;

    //prints the two elements of the midpoint array inside the structure for line1
    printf("%f\t%f", line1.midpoint[0], line1.midpoint[1]);
}

float solveDistance(struct line line1){
    float x_2 = pow(line1.point1.x - line1.point2.x, 2.0); //x^2
    float y_2 = pow(line1.point1.y - line1.point2.y, 2.0); //y^2
    line1.distance = sqrt(x_2 + y_2); //solves for the sqrt and stores it into the distance variable in the structure for line1

    return line1.distance; //returns the value
}

float getSlopeInterceptForm(struct line line1){
    //Access the variables in the structure then solve and stores it into the intercept variable in the structure for line1
    line1.intercept = line1.point1.y - solveSlope(line1) * line1.point1.x;
    return line1.intercept;
}
```

Github Link: https://github.com/ainzzcutie/CMSC21.git