**CECS 524 Unit 5 Assignments**

**Name: Spuritha Mudireddy**

**CSULB ID: 030743269**

Rewrite the Pascal Quadratic (from Unit 2) program in C

**Code:**

#include <stdio.h>

#include <math.h>

#include <stdlib.h>

int main() {

while(1)

{

double a ,b,c,rl,im;

printf("Enter a b c values: ");

scanf("%lf %lf %lf", &a, &b, &c);

if(a==0&&b==0&&c==0)

{

printf("3 equations were solved\n");

exit(0);

}

if(b\*b-4\*a\*c>0)

{

printf("Roots are real\n");

printf("Root 1: %lf\n",(-b+sqrt((b\*b)-4\*a\*c))/(2\*a));

printf("Root 2: %lf\n",(-b-sqrt((b\*b)-4\*a\*c))/(2\*a));

}

else if(b\*b-4\*a\*c==0)

{

printf("One real root\n");

printf("Root 1:%lf\n",(-b)/(2\*a));

}

else if(b\*b-4\*a\*c<0)

{

printf("Roots are Imaginary\n");

rl=-b/(2\*a);

im= sqrt(-((b\*b)-4\*a\*c))/2\*a;

if(b==0)

{

printf("Root 1:+i\*%lf\n",im);

printf("Root 2:-i\*%lf\n",im);

}

else

{

printf("Root 1:%lf+i\*%lf\n",rl,im);

printf("Root 2:%lf-i\*%lf\n",rl,im);

}

}

}

return 0;

}

**Output:**

A screenshot of a computer

Description automatically generated