```java
import java.util.Scanner;

class quadratic {
    public static void main(String[] args) {

        Scanner scanner = new Scanner(System.in);

        System.out.println("Enter the coefficients of a,b,c: ");

        System.out.print("Enter a: ");
        double a = scanner.nextDouble();

        System.out.print("Enter b: ");
        double b = scanner.nextDouble();

        System.out.print("Enter c: ");
        double c = scanner.nextDouble();

if (a == 0){
System.out.print("Not a quadratic quation");
}
else{


        double d = (b * b) - (4 * a * c);

        if (d > 0) {

            double root1 = (-b + Math.sqrt(d)) / (2 * a);
            double root2 = (-b - Math.sqrt(d)) / (2 * a);
            System.out.println("The roots are real and different.");
            System.out.println("Root 1: " + root1);
            System.out.println("Root 2: " + root2);
        } else if (d == 0) {

            double root = -b / (2 * a);
            System.out.println("The roots are real and equal.");
            System.out.println("Root: " + root);
        } else {

            System.out.print("no real roots");
        }
}


        scanner.close();
System.out.print("\n");
System.out.println("NAME: AFREEN ANZ");
System.out.println("USN: 1BM23CS016");
```

```
D:\1BM23CS016>java quadratic.java
Enter the coefficients of a,b,c:
Enter a: 5
Enter b: 7
Enter c: 9
no real roots
NAME: AFREEN ANZ
USN: 1BM23CS016

D:\1BM23CS016>java quadratic.java
Enter the coefficients of a,b,c:
Enter a: 2
Enter b: 4
Enter c: 2
The roots are real and equal.
Root: -1.0

NAME: AFREEN ANZ
USN: 1BM23CS016

D:\1BM23CS016>java quadratic.java
Enter the coefficients of a,b,c:
Enter a: 2
Enter b: 8
Enter c: 2
The roots are real and different.
Root 1: -0.2679491924311228
Root 2: -3.732050807568877

NAME: AFREEN ANZ
USN: 1BM23CS016

D:\1BM23CS016>java quadratic.java
Enter the coefficients of a,b,c:
Enter a: 0
Enter b: 4
Enter c: 6
Not a quadratic quation
NAME: AFREEN ANZ
USN: 1BM23CS016
```