Lab Program 1

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$-\parallel$	Program 1: Develop a jova program that boints
$-\parallel$	are real volution to the quadratic equation
	formula 41 41 h and in a,b,c and use the sundrating
	dishay
	Program 1: Develop a jova program that prints all real volution to the quadratic equation $ax^2 + bx + c = 0$. Read in a,b,c and use the quadratic formula. If the discriminate $b^2 - b^2 - 4ac$ is hegative, siplay a pressage stating that there use no real solutions.
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-	import java. util. *;
-	
-	day of 1 +
-	class Quadratic
	1 P. S. Att.
	fullie statie word main (String org [])
,	wint a local
	Louble d, r, r1, r2;
	Scanner Sc= new Scanner (System. in); System. out. println ("Enter the values of a, b and a = Sc-nextant(); h= con 11/4 (2);
	System. out println ("Enter the value of h
	a = SC-nextant();
	C-SC. Next Int ()
	c=Sc. nentant();
-	if (a == 0)
	§
-	system. out. printle ("It is not a Quadratic Equation
+	J
+	else
-	£
+	d=bx-4xaxc
-	if (d = =0)
-	2

s=-b/(2 * a);
System. out. println (" Poot = "+ r);
system. out. println (" Poot = "+ r); else if (d>0) 81=(-b+ Math · sgrt(d))/(2 *a); 3 - (-b- Math. cgrt (d)) / (2 * a);

System. out. printles ("The rook are real and distinct")

System. out. printles ("RI="+81+"R2="+r2); Edystem out printle ("Sorry 1 There are no real solutions. The roots are imaginary: "); 911=-b/(2*a); 312 = Math. sant (Math. abs(d))/(2+a). System. out. frintln("RI="+xI+"+i"+x2+"R2="+xI+"-i"+x2) 3333 Output :-Enter the values of a, b and c It is not a guadratic Equation ! Enter the values of a, b and c The roots are real and equal Enter the values of a, b and c 7 12 The roots are real and district RI= -3.0 R2= -4-0

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		classmate Date
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	Enter the values of a, band c	
	Sorry There are no real solution	The roots are smagurary
	20-61-0 12-2.0-61.0	
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*		,
	,	
	9 "	

OUTPUT:

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Command Prompt
C:\Users\SHANM>cd C:\Users\SHANM\OneDrive\Desktop\BMSCE STUDIES\Year 2\labimp\OOJ
C:\Users\SHANM\OneDrive\Desktop\BMSCE STUDIES\Year 2\labimp\OOJ>set path="C:\Program Files\Java\jdk-19\bin"
C:\Users\SHANM\OneDrive\Desktop\BMSCE STUDIES\Year 2\labimp\OOJ>javac Week1.java
C:\Users\SHANM\OneDrive\Desktop\BMSCE STUDIES\Year 2\labimp\00J>java Quadratic 
Enter the values of a,b and c
0 1 2
It is not a Quadratic Equation!
C:\Users\SHANM\OneDrive\Desktop\BMSCE STUDIES\Year 2\labimp\OOJ>java Quadratic
Enter the values of a,b and c
1 4 4
The roots are real and equal
Root = -2.0
C:\Users\SHANM\OneDrive\Desktop\BMSCE STUDIES\Year 2\labimp\00J>java Quadratic
Enter the values of a,b and c
1 7 12
The roots are real and distinct
R1 = -3.0 R2 = -4.0
C:\Users\SHANM\OneDrive\Desktop\BMSCE STUDIES\Year 2\labimp\00J>java Quadratic
Enter the values of a,b and c
1 4 5
Sorry! There are no real solutions. The roots are imaginary.
R1 = -2.0+i1.0R2 = -2.0-i1.0
C:\Users\SHANM\OneDrive\Desktop\BMSCE STUDIES\Year 2\labimp\OOJ>
```