**Object Oriented Programming in Java (Lab 1)**

**Problem:**

Write a program to:

1. A given point inside the circle or outside

2. Create a lottery system to take 2 two digit number from the user and check if the number is equal to the lottery number, partially equal or if even one digit of user's number is equal to the the lottery number.

3. Calculate the roots of a given quadratic equation.

**Structure:**

3 different classes are made each having their separate main function.

**Input:**

1. The program expects the user to enter the x,y coordinates of the center of the circle and the radius and then the coordinates of the point.

2. The program expects the user to enter a 2 digit number.

3. The program expects the user to enter the coefficients of x^2, x and the constant term.

**Output:**

1. The program results in saying “Point is inside the circle” if the entered point lies inside the circle or else says “Point is outside the circle” if the entered point lies outside the circle.

2. The program returns the prize money won according to the constraints given in the problem.

3. The program returns the solution of the entered equation.