

Exercise 1:

```
public class MyLab00 {
    public static void main(String[] args){
        int x;
        int y;
        int z;
        int a;
        int b;

        // Question a
        if ((x > 100 || x < 0) && (x >= y));
        System.out.println("X is grater than 100 or less than 0, and it is grater
than y");

        // Question b
        // if ((y < x < z) && (x < 10 || x >= 100))

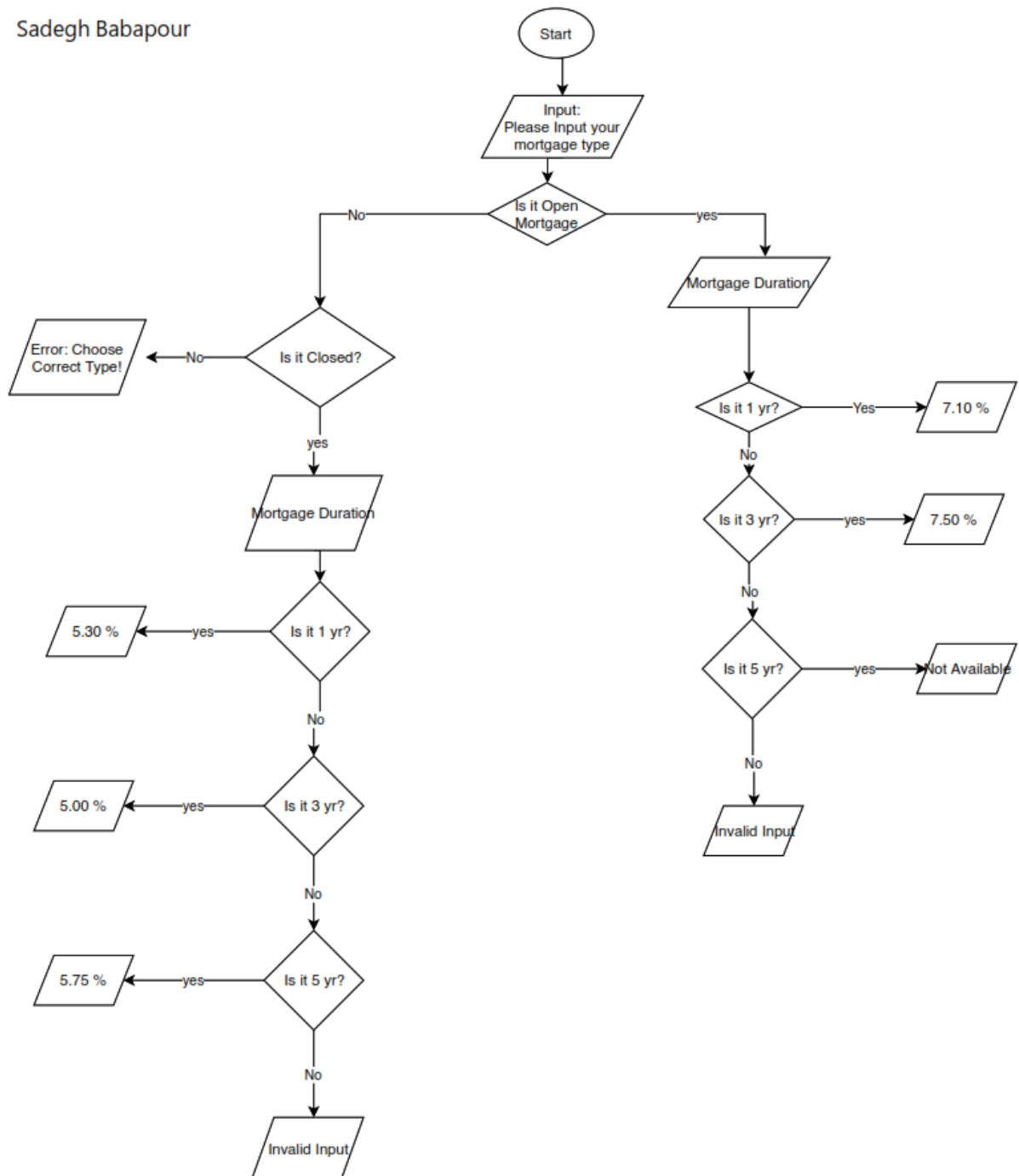
        if ((x > y && x < z) && (x < 10 || x >= 100))
            System.out.println("x is greater than y but less than z, and also x
is either less than 10 or greater\n" +
                "than or equal to 100 ");

        //Question c
        if (( a <= 0 || a > 90) && (a == b))
            System.out.println("a is less than or equal to 0 or greater than 90
and a is equal to b.");

        //Question d
        if ((y >= 50) && (y >z && y <= x))
            System.out.println("y is greater than or equal to 50. It also is
greater than z but\n"+
                "less than or equal to x");
    }
}
```

Exercise 2:

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Exercise 3:

```
import javax.swing.JOptionPane;

public class Q {
    public static void main(String[] args) {
        String mortgage;
        mortgage = JOptionPane.showInputDialog("Please Enter Your Mortgage Type:");

        if (mortgage.equals("open")) {
            System.out.println("You Chose Mortgage: Open!");
            String openDuration;
            openDuration = JOptionPane.showInputDialog("Please Enter your Open Mortgage Duration: ");
            if (openDuration.equals("1 yr"))
                System.out.println("Open Mortgage rate for 1 yr period is: " + "7.10 %");
            else if (openDuration.equals("3 yr"))
                System.out.println("Open Mortgage rate for 3 yr period is: " + "7.50 %");
            else if (openDuration.equals("5 yr"))
                System.out.println("Open Mortgage rate for 5 yr period is: " + "Not Available!");
            else
                System.out.println("Incorrect Mortgage Duration!");
        }
        else if (mortgage.equals("closed")) {
            System.out.println("You Chose Mortgage: Closed!");
            String closedDuration;
            closedDuration = JOptionPane.showInputDialog("Please Enter your Closed Mortgage Duration: ");
            if (closedDuration.equals("1 yr"))
                System.out.println("Closed Mortgage rate for 1 yr period is: " + "5.30 %");
            else if (closedDuration.equals("3 yr"))
                System.out.println("Closed Mortgage rate for 3 yr period is: " + "5.00 %");
            else if (closedDuration.equals("5 yr"))
                System.out.println("Closed Mortgage rate for 5 yr period is: " + "5.75 %");
        }
        else
            System.out.println("You did NOT choose the correct type of Mortgage!!");
    }
}
```