



VIT[®]
Vellore Institute of Technology
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SCHOOL OF INFORMATION TECHNOLOGY AND ENGINEERING

Assessment – I - DA

Course Name & Code: Programming in JAVA & CSE1007

Max. Marks: 10

Semester: Winter 2019-20

Slot: G1+TG1/G2+TG2

Due Date: 06 – 06 – 2020

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REG. NO: 17BCE2380

SLOT: G2

1. Design a JavaFX program to get string and substring. Find the number of occurrences of the substring in the string. Substring may occurred in the given string.

CODE

```
import javafx.application.Application;
import javafx.scene.Scene;
import javafx.scene.control.*;
import javafx.scene.layout.GridPane;
import javafx.stage.Stage;
import javafx.event.EventHandler;
import javafx.event.ActionEvent;
import javafx.geometry.Insets;

public class SearchBox extends Application {
    public static void main(String[] arg) {
        launch(arg);
    }
}
```

```

}

public void start(Stage primaryStage) throws Exception {

    Label lblString = new Label("Enter String");

    TextField txtString = new TextField();

    Button btnCount = new Button("Count Substring");

    Label lblSubstring = new Label("Enter substring");

    TextField txtSubstring = new TextField();

    Label lblOutput = new Label("Count: ");

    btnCount.setOnAction(new EventHandler <ActionEvent>() {

        @Override

        public void handle(ActionEvent e1){

            String input = txtString.getText();

            String pattern = txtSubstring.getText();

            int ptnLength = pattern.length();

            int inputLength = input.length();

            int count = 0;

            for (int i = 0; i <= inputLength - ptnLength; i++) {

                int j = 0;

                for (j=0; j < ptnLength; j++) {

                    if (input.charAt(i+j) != pattern.charAt(j)) {

                        break;

                    }

                }

                if (j == ptnLength) {

                    count++;

                }

                j = 0;

            }

            lblOutput.setText(String.format("Occurence of '%s' in String is %d", pattern, count));

        }

    });
}

```

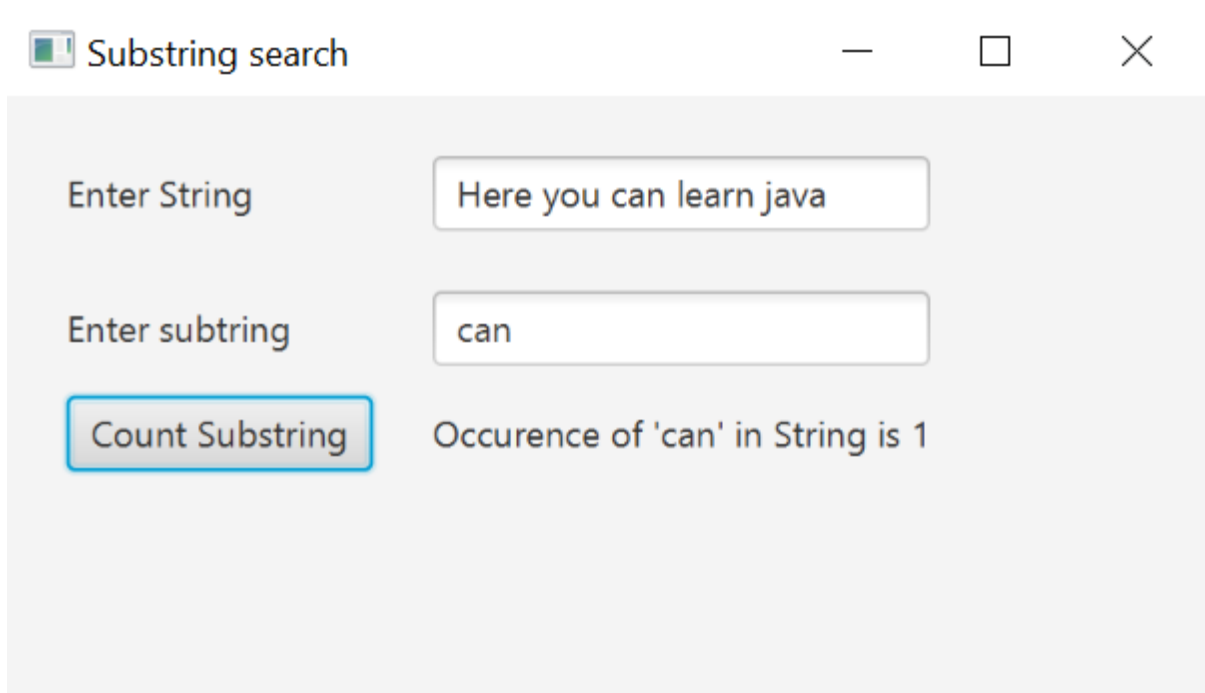
```

GridPane gp = new GridPane();
gp.setPadding(new Insets(20, 20, 20, 20));
gp.setVgap(10);
gp.setHgap(20);

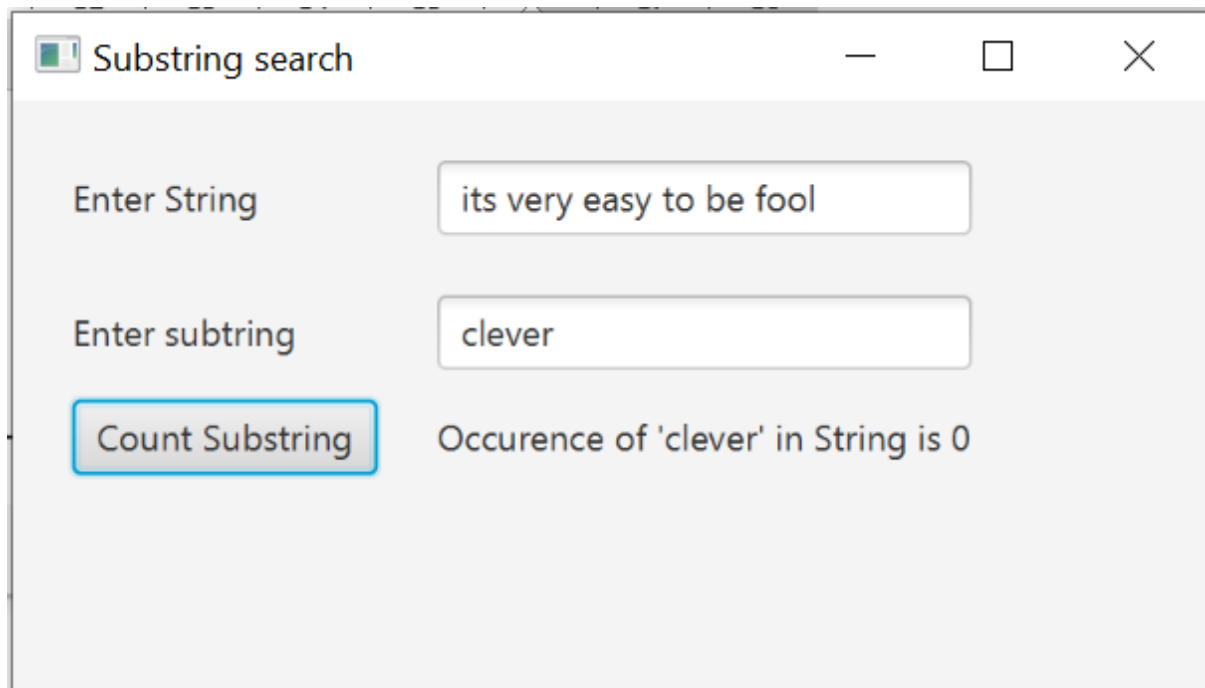
gp.add(lblString, 0, 0);
gp.add(txtString, 1, 0);
gp.add(lblSubstring, 0, 2);
gp.add(txtSubstring, 1, 2);
gp.add(btnCount, 0, 3);
gp.add(lblOutput, 1, 3);
Scene page = new Scene(gp, 400, 200);
primaryStage.setScene(page);
primaryStage.setTitle("Substring search");
primaryStage.show();
}
}

```

Case 1:



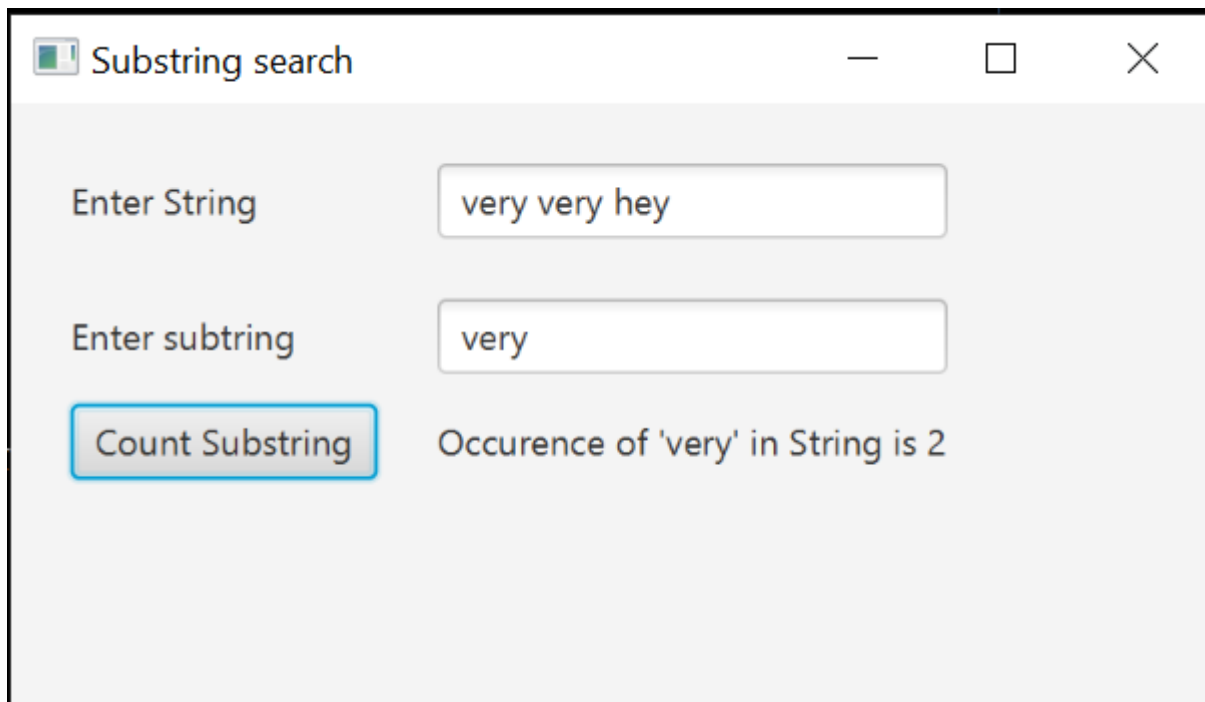
Case 2:



The screenshot shows a window titled "Substring search" with standard Windows window controls (minimize, maximize, close). Inside the window, there are two input fields and a button. The first input field, labeled "Enter String", contains the text "its very easy to be fool". The second input field, labeled "Enter subtring", contains the text "clever". Below these fields is a button labeled "Count Substring" which is highlighted with a blue border. To the right of the button, the text "Occurence of 'clever' in String is 0" is displayed.

Enter String	its very easy to be fool
Enter subtring	clever
Count Substring	Occurence of 'clever' in String is 0

CASE 3:



The screenshot shows the same "Substring search" application window. In this case, the "Enter String" field contains "very very hey" and the "Enter subtring" field contains "very". The "Count Substring" button is again highlighted with a blue border. The output text to the right of the button now reads "Occurence of 'very' in String is 2".

Enter String	very very hey
Enter subtring	very
Count Substring	Occurence of 'very' in String is 2