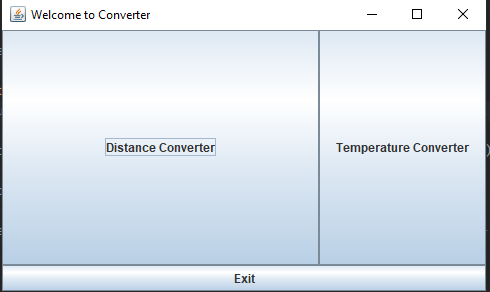
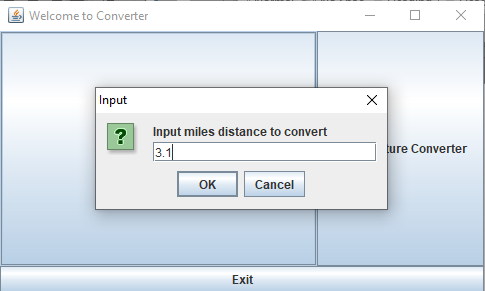
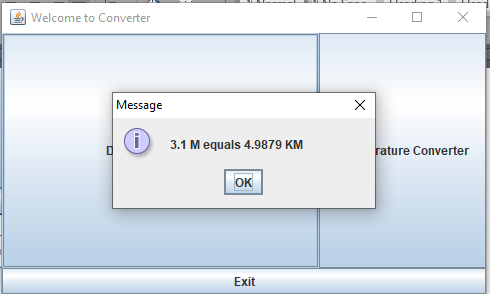
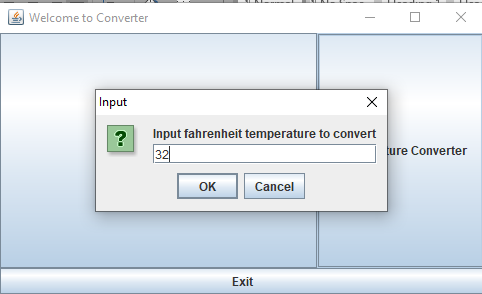
**QID52943**

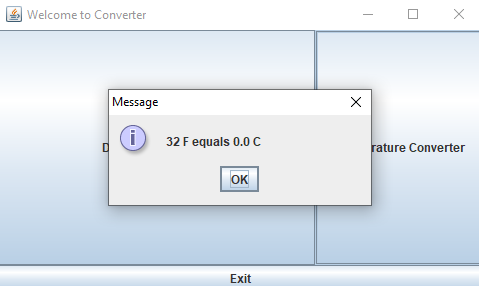
**Output Screen Shots**











**Java Code**

import javax.swing.\*;

import java.awt.\*;

import java.awt.event.ActionEvent;

import java.awt.event.ActionListener;

/\*\*

\* The type Converter.

\*/

class Converter {

private double input;

/\*\*

\* Instantiates a new Converter.

\*/

public Converter() {

input = Double.NaN;

}

// Overloaded constructor

/\*\*

\* Instantiates a new Converter.

\*

\* @param input the input

\*/

public Converter(double input) {

this.input = input;

}

// Get & Set methods

/\*\*

\* Gets input.

\*

\* @return the input

\*/

public double getInput() {

return input;

}

/\*\*

\* Sets input.

\*

\* @param input the input

\*/

public void setInput(double input) {

this.input = input;

}

/\*\*

\* Convert double.

\*

\* @return the double

\*/

public double convert() {

return input;

}

}

// TemperatureConverter class

/\*\*

\* The type Temperature converter.

\*/

class TemperatureConverter extends Converter{

/\*\*

\* Instantiates a new Temperature converter.

\*

\* @param input the input

\*/

public TemperatureConverter(double input) {

super(input);

}

@Override

public double convert() {

if (Double.isNaN(getInput())) {

return Double.NaN;

}

return ((getInput() - 32) \* 5) / 9.0;

}

}

// DistanceConverter class

/\*\*

\* The type Distance converter.

\*/

class DistanceConverter extends Converter{

/\*\*

\* Instantiates a new Distance converter.

\*

\* @param input the input

\*/

public DistanceConverter(double input) {

super(input);

}

@Override

public double convert() {

if (Double.isNaN(getInput())) {

return Double.NaN;

}

return getInput() \* 1.609;

}

}

// GUIConverter class

/\*\*

\* The type Gui converter.

\*/

public class GUIConverter {

/\*\*

\* The entry point of application.

\*

\* @param args the input arguments

\*/

public static void main(String[] args) {

// Creating a frame

JFrame frame = new JFrame();

frame.setTitle("Welcome to Converter");

frame.setSize(500, 300);

frame.setDefaultCloseOperation(JFrame.EXIT\_ON\_CLOSE);

// Creating a frame

JPanel panel = new JPanel();

panel.setLayout(new BorderLayout());

// Creating 3 buttons

JButton btn1 = new JButton("Distance Converter");

JButton btn2 = new JButton("Temperature Converter");

JButton btn3 = new JButton("Exit");

// Adding ActionListener for each button that what would that specific button do when it is clicked

btn1.addActionListener(new ActionListener() {

@Override

public void actionPerformed(ActionEvent actionEvent) {

String input = JOptionPane.showInputDialog(frame, "Input miles distance to convert");

Converter converter = new DistanceConverter(Double.parseDouble(input));

double output = converter.convert();

JOptionPane.showMessageDialog(frame, input + " M equals " + output + " KM");

}

});

btn2.addActionListener(new ActionListener() {

@Override

public void actionPerformed(ActionEvent actionEvent) {

String input = JOptionPane.showInputDialog(frame, "Input fahrenheit temperature to convert");

Converter converter = new TemperatureConverter(Double.parseDouble(input));

double output = converter.convert();

JOptionPane.showMessageDialog(frame, input + " F equals " + output + " C");

}

});

btn3.addActionListener(new ActionListener() {

@Override

public void actionPerformed(ActionEvent actionEvent) {

System.exit(1);

}

});

// Adding buttons in the panel

panel.add(btn1, BorderLayout.CENTER);

panel.add(btn2, BorderLayout.EAST);

panel.add(btn3, BorderLayout.SOUTH);

// Adding panel in frame

frame.add(panel);

// Making frame visible

frame.setVisible(true);

}

}