import javafx.application.Application;

import javafx.collections.FXCollections;

import javafx.collections.ObservableList;

import javafx.scene.Scene;

import javafx.scene.chart.BarChart;

import javafx.scene.chart.CategoryAxis;

import javafx.scene.chart.NumberAxis;

import javafx.scene.chart.XYChart;

import javafx.scene.layout.VBox;

import javafx.stage.Stage;

public class DataVisualizationApp extends Application {

@Override

public void start(Stage primaryStage) {

// Create data

ObservableList<XYChart.Data<String, Number>> data = FXCollections.observableArrayList(

new XYChart.Data<>("Category 1", 20),

new XYChart.Data<>("Category 2", 30),

new XYChart.Data<>("Category 3", 10),

new XYChart.Data<>("Category 4", 40)

);

// Create a series

XYChart.Series<String, Number> series = new XYChart.Series<>();

series.setName("Data Series");

series.setData(data);

// Create a bar chart

CategoryAxis xAxis = new CategoryAxis();

NumberAxis yAxis = new NumberAxis();

BarChart<String, Number> barChart = new BarChart<>(xAxis, yAxis);

barChart.setTitle("Data Visualization");

barChart.getData().add(series);

// Create layout and scene

VBox vbox = new VBox(barChart);

Scene scene = new Scene(vbox, 800, 600);

// Set stage properties

primaryStage.setTitle("Data Visualization App");

primaryStage.setScene(scene);

primaryStage.show();

}

public static void main(String[] args) {

launch(args);

}

}