**Lab No.10 1)**

import javafx.application.Application; import javafx.scene.Scene; import javafx.scene.control.\*; import javafx.scene.layout.\*; import javafx.event.ActionEvent; import javafx.event.EventHandler; import javafx.scene.control.Label; import javafx.stage.Stage; import javafx.scene.image.\*; import javafx.scene.paint.Color; import java.io.\*;

public class lab10\_1 extends Application { int b1Data;

public void start(Stage s) throws Exception

{

s.setTitle("This is my first JavaFX Application");

s.setWidth(500);

s.setHeight(200);

Label b = new Label("Welcome to JavaFX programming"); b.setTextFill(Color.web("#ff00ff", 0.8)); TextField b1 = new TextField("InputNumber");

b1.setOnAction(new EventHandler<ActionEvent>() {

@Override public void handle(ActionEvent event) { b1Data = Integer.parseInt(b1.getText());

for(int i = 1; i < 11; i++) {

System.out.println(String.format("%d x %d = %d", b1Data, i, b1Data\*i));

}

}

});

Label b3 = new Label("Enter a number");

b3.setLabelFor(b1);

FlowPane r = new FlowPane(); r.setVgap(8);

r.setHgap(4);

r.getChildren().add(b);

r.getChildren().add(b3);

r.getChildren().add(b1); Scene sc = new Scene(r, 200, 200);

s.setScene(sc);

s.show();

}

public static void main(String args[])

{ launch(args);

}

}

**2)** import javafx.application.Application; import javafx.scene.Scene; import javafx.scene.control.\*; import javafx.scene.layout.\*; import javafx.event.ActionEvent; import javafx.event.EventHandler; import javafx.scene.control.Label; import javafx.stage.Stage; import javafx.scene.image.\*; import javafx.scene.paint.Color; import javafx.geometry.Insets; import javafx.geometry.Pos; import java.io.\*;

public class lab10\_2 extends Application {

String username; String password;

public void start(Stage s) throws Exception

{

s.setTitle("JavaFX Welcome");

s.setWidth(500);

s.setHeight(200);

Label b = new Label("Welcome");

TextField tfUsername = new TextField("");

Label lbUsername = new Label("User Name: "); lbUsername.setLabelFor(tfUsername);

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

@Override public void handle(ActionEvent event) {

username = tfUsername.getText();

}

});

PasswordField tfPassword = new PasswordField();

Label lbPassword = new Label("Password: "); lbPassword.setLabelFor(tfPassword);

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

@Override public void handle(ActionEvent event) {

password = tfPassword.getText();

} });

Label welcome = new Label("Welcome"); welcome.setVisible(false);

Button btn = new Button("Sign in");

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

@Override public void handle(ActionEvent arg0) { username = tfUsername.getText(); password = tfPassword.getText();

welcome.setText("Welcome " + username); welcome.setVisible(true);

}

} );

GridPane r = new GridPane(); r.setMinSize(500, 200);

r.setPadding(new Insets(10, 10, 10, 10));

r.setVgap(5);

r.setHgap(5);

r.setAlignment(Pos.BASELINE\_LEFT);

r.add(b, 0, 0);

r.add(lbUsername, 0, 1);

r.add(tfUsername, 1, 1);

r.add(lbPassword, 0, 2);

r.add(tfPassword, 1, 2);

r.add(welcome, 1, 3);

r.add(btn, 2, 3);

Scene sc = new Scene(r, 200, 200);

s.setScene(sc);

s.show();

}

public static void main(String args[])

{ launch(args);

}

}

**3)**

import javafx.application.Application; import javafx.scene.Scene; import javafx.scene.control.\*; import javafx.scene.layout.\*; import javafx.event.ActionEvent; import javafx.event.EventHandler; import javafx.scene.control.Label; import javafx.stage.Stage; import javafx.scene.image.\*; import javafx.scene.paint.Color; import javafx.geometry.Insets; import javafx.geometry.Pos; import javafx.scene.canvas.\*; import javafx.scene.image.ImageView; import javafx.scene.image.Image;

import java.io.FileInputStream; import java.io.\*;

public class lab10\_3 extends Application { float num1, num2;

public void start(Stage s) throws Exception

{

s.setTitle("Calculator");

s.setWidth(500);

s.setHeight(500);

FileInputStream input=new FileInputStream("./calculator.png");

Image image = new Image(input); ImageView img=new ImageView(image);

img.setPreserveRatio(true); img.setFitHeight(30);

Label b = new Label("Welcome");

TextField tfnum1 = new TextField("");

Label lbnum1 = new Label("Number 1: "); lbnum1.setLabelFor(tfnum1);

TextField tfnum2 = new TextField("");

Label lbnum2 = new Label("Number 2: "); lbnum2.setLabelFor(tfnum2);

Label sum = new Label();

Label product = new Label();

Label difference = new Label();

Label quotient = new Label();

sum.setVisible(false); product.setVisible(false); difference.setVisible(false); quotient.setVisible(false);

Button btn = new Button("Compute");

btn.setGraphic(img);

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

@Override

public void handle(ActionEvent arg0) { try{

num1 = Float.parseFloat(tfnum1.getText()); num2 = Float.parseFloat(tfnum2.getText());

sum.setText(String.format(" Sum = %f", num1+num2)); product.setText(String.format(" Product = %f", num1\*num2)); difference.setText(String.format(" Difference = %f", num1-num2)); quotient.setText(String.format(" Quotient = %f", num1/num2));

sum.setVisible(true); product.setVisible(true); difference.setVisible(true);

quotient.setVisible(true);

}catch(java.lang.NumberFormatException ex)

{

System.out.println("NumberFormatException");

}

}

} );

Canvas can = new Canvas(300.0f, 300.0f); GraphicsContext gc = can.getGraphicsContext2D();

gc.setFill(Color.YELLOW); gc.fillRect(0, 0, 300, 300);

GridPane l = new GridPane();

l.setPadding(new Insets(10, 10, 10, 10));

l.setVgap(5);

l.setHgap(5);

l.setAlignment(Pos.BASELINE\_LEFT);

l.add(sum, 0, 0);

l.add(product, 0, 1);

l.add(difference, 0, 2);

l.add(quotient, 0, 3);

StackPane n = new StackPane(); n.getChildren().addAll(can, l); GridPane r = new GridPane(); r.setMinSize(500, 200);

r.setPadding(new Insets(10, 10, 10, 10));

r.setVgap(5);

r.setHgap(5);

r.setAlignment(Pos.BASELINE\_LEFT);

r.add(b, 0, 0);

r.add(lbnum1, 0, 1);

r.add(tfnum1, 1, 1);

r.add(lbnum2, 0, 2);

r.add(tfnum2, 1, 2);

r.add(btn, 2, 3);

r.add(n, 0, 5, 2, 5);

Scene sc = new Scene(r, 200, 200);

s.setScene(sc);

s.show();

}

public static void main(String args[])

{ launch(args);

}

}