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**What we need to learn**

**A picture containing text, music

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1ST step

**import** javafx.application.Application;

2nd step

**public** **class** ex1 **extends** Application{

**public** **static** **void** main(String[] args) {

}

3rd step

@Override

**public** **void** start(Stage stage) **throws** Exception {

// **TODO** Auto-generated method stub

}

4th step

You have to call launch() method inside main launch is a standalone method you can only call it once in entire application

**public** **static** **void** main(String[] args) {

*launch*();

}

Create Control

**package** javafx;

**import** javafx.application.Application;

**import** javafx.scene.control.Button;

**import** javafx.stage.Stage;

**public** **class** ex1 **extends** Application{

**public** **static** **void** main(String[] args) {

*launch*();

}

@Override

**public** **void** start(Stage stage) **throws** Exception {

Button b = **new** Button("click");

}

}

Define layout

**package** javafx;

**import** javafx.application.Application;

**import** javafx.scene.control.Button;

**import** javafx.scene.layout.HBox;

**import** javafx.stage.Stage;

**public** **class** ex1 **extends** Application{

**public** **static** **void** main(String[] args) {

*launch*();

}

@Override

**public** **void** start(Stage stage) **throws** Exception {

Button b = **new** Button("click");

HBox h = **new** HBox();

}

}

Add control to layout

**package** javafx;

**import** javafx.application.Application;

**import** javafx.scene.control.Button;

**import** javafx.scene.layout.HBox;

**import** javafx.stage.Stage;

**public** **class** ex1 **extends** Application{

**public** **static** **void** main(String[] args) {

*launch*();

}

@Override

**public** **void** start(Stage stage) **throws** Exception {

Button b = **new** Button("click");

HBox h = **new** HBox();

h.getChildren().add(b);

}

}

Add this layout to a scene

**package** javafx;

**import** javafx.application.Application;

**import** javafx.scene.Scene;

**import** javafx.scene.control.Button;

**import** javafx.scene.layout.HBox;

**import** javafx.stage.Stage;

**public** **class** ex1 **extends** Application{

**public** **static** **void** main(String[] args) {

*launch*();

}

@Override

**public** **void** start(Stage stage) **throws** Exception {

Button b = **new** Button("click");

HBox h = **new** HBox();

h.getChildren().add(b);

Scene sc = **new** Scene(h);

}

}

Add this scene to a stage (you can add multiple scenes to a stage)

**package** javafx;

**import** javafx.application.Application;

**import** javafx.scene.Scene;

**import** javafx.scene.control.Button;

**import** javafx.scene.layout.HBox;

**import** javafx.stage.Stage;

**public** **class** ex1 **extends** Application{

**public** **static** **void** main(String[] args) {

*launch*();

}

@Override

**public** **void** start(Stage stage) **throws** Exception {

Button b = **new** Button("click");

HBox h = **new** HBox();

h.getChildren().add(b);

Scene sc = **new** Scene(h);

stage.setScene(sc);

}

}

To show the frame/stage

**package** javafx;

**import** javafx.application.Application;

**import** javafx.scene.Scene;

**import** javafx.scene.control.Button;

**import** javafx.scene.layout.HBox;

**import** javafx.stage.Stage;

**public** **class** ex1 **extends** Application{

**public** **static** **void** main(String[] args) {

*launch*();

}

@Override

**public** **void** start(Stage stage) **throws** Exception {

Button b = **new** Button("click");

HBox h = **new** HBox();

h.getChildren().add(b);

Scene sc = **new** Scene(h);

stage.setScene(sc);

stage.show();

}

}

Graphical user interface, text, application

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**package** javafx;

**import** javafx.application.Application;

**import** javafx.scene.Scene;

**import** javafx.scene.control.Button;

**import** javafx.scene.layout.HBox;

**import** javafx.stage.Stage;

**public** **class** ex1 **extends** Application{

**public** **static** **void** main(String[] args) {

*launch*();

}

@Override

**public** **void** start(Stage stage) **throws** Exception {

Button b = **new** Button("click");

HBox h = **new** HBox();

h.getChildren().add(b);

Scene sc = **new** Scene(h);

stage.setScene(sc);

stage.setHeight(500);

stage.setWidth(500);

stage.setTitle("Nida's App");

stage.setFullScreen(**true**);

stage.show();

}

}

stage.close(); //frame appears and disappears

Text, letter

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HBox

**package** javafx;

**import** javafx.application.Application;

**import** javafx.scene.Scene;

**import** javafx.scene.control.Button;

**import** javafx.scene.layout.HBox;

**import** javafx.stage.Stage;

**public** **class** ex1 **extends** Application{

**public** **static** **void** main(String[] args) {

*launch*();

}

@Override

**public** **void** start(Stage stage) **throws** Exception {

Button b1 = **new** Button("click");

Button b2= **new** Button("click");

Button b3= **new** Button("click");

Button b4 = **new** Button("click");

Button b5 = **new** Button("click");

Button b6 = **new** Button("click");

HBox h = **new** HBox();

h.getChildren().add(b1);

h.getChildren().add(b2);

h.getChildren().add(b3);

h.getChildren().add(b4);

h.getChildren().add(b5);

h.getChildren().add(b6);

Scene sc = **new** Scene(h);

stage.setScene(sc);

stage.setHeight(500);

stage.setWidth(500);

stage.setTitle("Nida's App");

stage.show();

}

}

Graphical user interface, application, Word

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VBox:

**package** javafx;

**import** javafx.application.Application;

**import** javafx.scene.Scene;

**import** javafx.scene.control.Button;

**import** javafx.scene.layout.VBox;

**import** javafx.stage.Stage;

**public** **class** ex1 **extends** Application{

**public** **static** **void** main(String[] args) {

*launch*();

}

@Override

**public** **void** start(Stage stage) **throws** Exception {

Button b1 = **new** Button("click");

Button b2= **new** Button("click");

Button b3= **new** Button("click");

Button b4 = **new** Button("click");

Button b5 = **new** Button("click");

Button b6 = **new** Button("click");

VBox h = **new** VBox();

h.getChildren().add(b1);

h.getChildren().add(b2);

h.getChildren().add(b3);

h.getChildren().add(b4);

h.getChildren().add(b5);

h.getChildren().add(b6);

Scene sc = **new** Scene(h);

stage.setScene(sc);

stage.setHeight(500);

stage.setWidth(500);

stage.setTitle("Nida's App");

stage.show();

}

}

Graphical user interface, application, Word

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setSpacing with HBox and VBox

**package** javafx;

**import** javafx.application.Application;

**import** javafx.scene.Scene;

**import** javafx.scene.control.Button;

**import** javafx.scene.layout.VBox;

**import** javafx.stage.Stage;

**public** **class** ex1 **extends** Application{

**public** **static** **void** main(String[] args) {

*launch*();

}

@Override

**public** **void** start(Stage stage) **throws** Exception {

Button b1 = **new** Button("click");

Button b2= **new** Button("click");

Button b3= **new** Button("click");

Button b4 = **new** Button("click");

Button b5 = **new** Button("click");

Button b6 = **new** Button("click");

VBox h = **new** VBox();

h.setSpacing(20);

h.getChildren().add(b1);

h.getChildren().add(b2);

h.getChildren().add(b3);

h.getChildren().add(b4);

h.getChildren().add(b5);

h.getChildren().add(b6);

Scene sc = **new** Scene(h);

stage.setScene(sc);

stage.setHeight(500);

stage.setWidth(500);

stage.setTitle("Nida's App");

stage.show();

}

}

Graphical user interface, application

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Graphical user interface, application

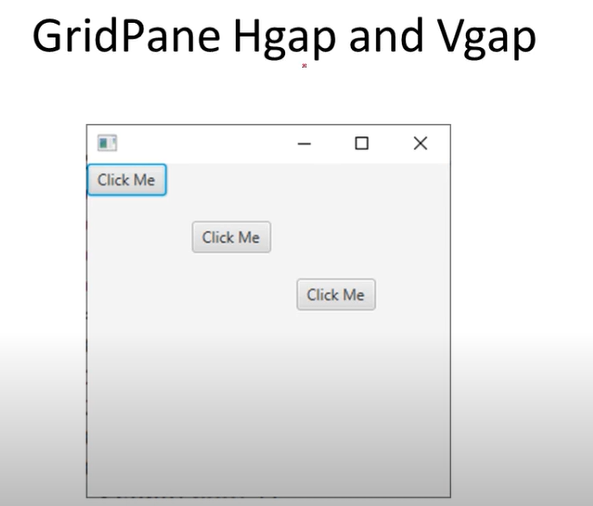
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