Sources:

CISC190 Java Programming

A black text on a white background

AI-generated content may be incorrect.

A close up of a text

AI-generated content may be incorrect.

A white text with black text

AI-generated content may be incorrect.

A text on a page

AI-generated content may be incorrect.

A white background with black text

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A close up of a number

AI-generated content may be incorrect.

A screen shot of a computer program

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A screenshot of a computer

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A screenshot of a computer program

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A close up of text

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A screenshot of a computer program

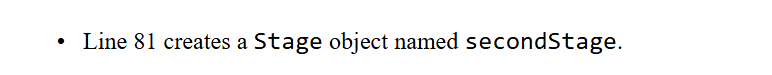
AI-generated content may be incorrect.

A close up of a text

AI-generated content may be incorrect.

A close up of a white background

AI-generated content may be incorrect.



A black text on a white background

AI-generated content may be incorrect.

A close up of a text

AI-generated content may be incorrect.

A screenshot of a computer

AI-generated content may be incorrect.

A close up of a text

AI-generated content may be incorrect.

Ex:

**package** application;

**import** java.util.ArrayList;

**import** javafx.application.Application;

**import** javafx.stage.Stage;

**import** javafx.scene.Scene;

**import** javafx.scene.control.Label;

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

**import** javafx.scene.control.TextField;

**import** javafx.scene.image.Image;

**import** javafx.scene.image.ImageView;

**import** javafx.scene.control.ListView;

**import** javafx.scene.control.SelectionMode;

**import** javafx.collections.ObservableList;

**import** javafx.scene.control.ComboBox;

**import** javafx.scene.control.MenuBar;

**import** javafx.scene.control.Menu;

**import** javafx.scene.control.MenuItem;

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

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

**import** javafx.scene.layout.GridPane;

**import** javafx.scene.layout.BorderPane;

**import** javafx.scene.layout.StackPane;

**import** javafx.scene.layout.AnchorPane;

**import** javafx.geometry.Insets;

**import** javafx.geometry.Pos;

**import** javafx.event.ActionEvent;

**import** javafx.event.EventHandler;

**public** **class** **Main** **extends** Application {

**public** **Label** label1;

**public** **Button** button1;

**public** **HBox** hbox1;

**public** **VBox** vbox1;

**public** **BorderPane** borderPane1;

**public** **Scene** scene;

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

***launch***(args);

}

**@Override**

**public** **void** **start**(**Stage** primaryStage) {

primaryStage.**setTitle**(**"GUI Applicaiton"**);

**MenuBar** **menuBar1** = **new** **MenuBar**();

**Menu** **menu1** = **new** **Menu**(**"⏬ Menu"**);

**MenuItem** **menuItem1** = **new** **MenuItem**(**"1. Image"**);

**MenuItem** **menuItem2** = **new** **MenuItem**(**"2. Tools"**);

**MenuItem** **menuItem3** = **new** **MenuItem**(**"3. Exit"**);

menu1.**getItems**().**addAll**(menuItem1,menuItem2,menuItem3);

menuBar1.**getMenus**().**add**(menu1);

menuItem1.**setOnAction**(**event**->{

label1.**setText**(**"Result: "**+menuItem1.**getText**());

});

menuItem2.**setOnAction**(**event**->{

label1.**setText**(**"Result: "**+menuItem2.**getText**());

});

menuItem3.**setOnAction**(**event**->{

primaryStage.**close**();

});

button1 = **new** **Button**(**"👉 Click Me!!!"**);

button1.**setOnAction**(**event**->{

**secondScene**();

});

label1 = **new** **Label**(**"Result: "**);

vbox1 = **new** **VBox**(**10**, menuBar1, button1, label1);

vbox1.**getStyleClass**().**add**(**"main\_content1"**);

vbox1.**setPadding**(**new** **Insets**(**10**));

vbox1.**setAlignment**(Pos.**CENTER**);

borderPane1 = **new** **BorderPane**();

borderPane1.**setCenter**(vbox1);

scene = **new** **Scene**(borderPane1);

scene.**getStylesheets**().**add**(**"file:style1.css"**);

primaryStage.**setScene**(scene);

primaryStage.**show**();

}

**public** **void** **secondScene**() {

**Stage** **stage2** = **new** **Stage**();

**Image** **image1** = **new** **Image**(**"file:wallpaper1.jpg"**);

**ImageView** **imageView1** = **new** **ImageView**(image1);

imageView1.**setPreserveRatio**(**true**);

imageView1.**setFitWidth**(**500**);

imageView1.**setFitHeight**(**500**);

**Button** **closeButt** = **new** **Button**(**"X"**);

closeButt.**setStyle**(**"-fx-background-color:red;-fx-text-fill:white;-fx-font-size:25px;"**);

closeButt.**setOnAction**(**event**->{

stage2.**close**();

});

**VBox** **vbox1** = **new** **VBox**(**10**, imageView1);

**VBox** **vbox2** = **new** **VBox**(**10**, closeButt);

**BorderPane** **borderPane2** = **new** **BorderPane**();

borderPane2.**setCenter**(vbox1);

borderPane2.**setRight**(vbox2);

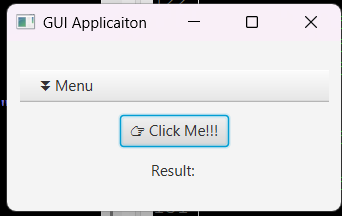
**Scene** **scene2** = **new** **Scene**(borderPane2);

stage2.**setScene**(scene2);

stage2.**showAndWait**();

}

}



If you click the Click Me!!! Button =>

A lake surrounded by mountains

AI-generated content may be incorrect.

Through this lesson, you can take advantage of the things that you learned to create an app that contains many modules. Each module contains codes for different scenes so that you can insert them into your main file to avoid writing to many syntaxes in any file in your program.

According to the short program example above, I can put the secondScene method into a different java file and insert it into my Main.java file like the program below:

Syntax in **Main.java**

**package** application;

**import** java.util.ArrayList;

**import** javafx.application.Application;

**import** javafx.stage.Stage;

**import** javafx.scene.Scene;

**import** javafx.scene.control.Label;

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

**import** javafx.scene.control.TextField;

**import** javafx.scene.image.Image;

**import** javafx.scene.image.ImageView;

**import** javafx.scene.control.ListView;

**import** javafx.scene.control.SelectionMode;

**import** javafx.collections.ObservableList;

**import** javafx.scene.control.ComboBox;

**import** javafx.scene.control.MenuBar;

**import** javafx.scene.control.Menu;

**import** javafx.scene.control.MenuItem;

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

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

**import** javafx.scene.layout.GridPane;

**import** javafx.scene.layout.BorderPane;

**import** javafx.scene.layout.StackPane;

**import** javafx.scene.layout.AnchorPane;

**import** javafx.geometry.Insets;

**import** javafx.geometry.Pos;

**import** javafx.event.ActionEvent;

**import** javafx.event.EventHandler;

**public** **class** **Main** **extends** Application {

**private** **Label** label1;

**private** **Button** button1;

**private** **HBox** hbox1;

**private** **VBox** vbox1;

**private** **BorderPane** borderPane1;

**private** **Scene** scene;

**private** **SecondScene** secondSceneObj;

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

***launch***(args);

}

**@Override**

**public** **void** **start**(**Stage** primaryStage) {

primaryStage.**setTitle**(**"GUI Applicaiton"**);

secondSceneObj = **new** **SecondScene**();

**MenuBar** **menuBar1** = **new** **MenuBar**();

**Menu** **menu1** = **new** **Menu**(**"⏬ Menu"**);

**MenuItem** **menuItem1** = **new** **MenuItem**(**"1. Image"**);

**MenuItem** **menuItem2** = **new** **MenuItem**(**"2. Tools"**);

**MenuItem** **menuItem3** = **new** **MenuItem**(**"3. Exit"**);

menu1.**getItems**().**addAll**(menuItem1,menuItem2,menuItem3);

menuBar1.**getMenus**().**add**(menu1);

menuItem1.**setOnAction**(**event**->{

secondSceneObj.**secondScene**();

label1.**setText**(**"Result: "**+menuItem1.**getText**());

});

menuItem2.**setOnAction**(**event**->{

label1.**setText**(**"Result: "**+menuItem2.**getText**());

});

menuItem3.**setOnAction**(**event**->{

primaryStage.**close**();

});

button1 = **new** **Button**(**"👉 Click Me!!!"**);

button1.**setOnAction**(**event**->{

secondSceneObj.**secondScene**();

});

label1 = **new** **Label**(**"Result: "**);

vbox1 = **new** **VBox**(**10**, menuBar1, button1, label1);

vbox1.**getStyleClass**().**add**(**"main\_content1"**);

vbox1.**setPadding**(**new** **Insets**(**10**));

vbox1.**setAlignment**(Pos.**CENTER**);

borderPane1 = **new** **BorderPane**();

borderPane1.**setCenter**(vbox1);

scene = **new** **Scene**(borderPane1);

scene.**getStylesheets**().**add**(**"file:style1.css"**);

primaryStage.**setScene**(scene);

primaryStage.**show**();

}

}

Syntax in **SecondScene.java**

**package** application;

**import** javafx.scene.Scene;

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

**import** javafx.scene.image.Image;

**import** javafx.scene.image.ImageView;

**import** javafx.scene.layout.BorderPane;

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

**import** javafx.stage.Stage;

**public** **class** **SecondScene**{

**public** **SecondScene**() {

**System**.**out**.**println**(**""**);

}

**public** **void** **secondScene**() {

**Stage** **stage2** = **new** **Stage**();

**Image** **image1** = **new** **Image**(**"file:wallpaper1.jpg"**);

**ImageView** **imageView1** = **new** **ImageView**(image1);

imageView1.**setPreserveRatio**(**true**);

imageView1.**setFitWidth**(**500**);

imageView1.**setFitHeight**(**500**);

**Button** **closeButt** = **new** **Button**(**"X"**);

closeButt.**setStyle**(**"-fx-background-color:red;-fx-text-fill:white;-fx-font-size:25px;"**);

closeButt.**setOnAction**(**event**->{

stage2.**close**();

});

**VBox** **vbox1** = **new** **VBox**(**10**, imageView1);

**VBox** **vbox2** = **new** **VBox**(**10**, closeButt);

**BorderPane** **borderPane2** = **new** **BorderPane**();

borderPane2.**setCenter**(vbox1);

borderPane2.**setRight**(vbox2);

**Scene** **scene2** = **new** **Scene**(borderPane2);

stage2.**setScene**(scene2);

stage2.**showAndWait**();

}

}

A screenshot of a computer

AI-generated content may be incorrect.

\*You can shorten the content from each scene from each file too by putting different tools into different java files. Below is an example:

Syntax in **Main.java**

**package** application;

**import** java.util.ArrayList;

**import** javafx.application.Application;

**import** javafx.stage.Stage;

**import** javafx.scene.Scene;

**import** javafx.scene.control.Label;

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

**import** javafx.scene.control.TextField;

**import** javafx.scene.image.Image;

**import** javafx.scene.image.ImageView;

**import** javafx.scene.control.ListView;

**import** javafx.scene.control.SelectionMode;

**import** javafx.collections.ObservableList;

**import** javafx.scene.control.ComboBox;

**import** javafx.scene.control.MenuBar;

**import** javafx.scene.control.Menu;

**import** javafx.scene.control.MenuItem;

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

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

**import** javafx.scene.layout.GridPane;

**import** javafx.scene.layout.BorderPane;

**import** javafx.scene.layout.StackPane;

**import** javafx.scene.layout.AnchorPane;

**import** javafx.geometry.Insets;

**import** javafx.geometry.Pos;

**import** javafx.event.ActionEvent;

**import** javafx.event.EventHandler;

**public** **class** **Main** **extends** Application {

**private** **Label** label1;

**private** **Button** button1;

**private** **HBox** hbox1;

**private** **VBox** vbox1;

**private** **MenuTool** menuTool;

**private** **BorderPane** borderPane1;

**private** **Scene** scene;

**private** **SecondScene** secondSceneObj;

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

***launch***(args);

}

**@Override**

**public** **void** **start**(**Stage** primaryStage) {

primaryStage.**setTitle**(**"GUI Applicaiton"**);

secondSceneObj = **new** **SecondScene**();

menuTool = **new** **MenuTool**();

button1 = **new** **Button**(**"👉 Click Me!!!"**);

button1.**setOnAction**(**event**->{

secondSceneObj.**secondScene**();

});

label1 = **new** **Label**(**"Result: "**);

vbox1 = **new** **VBox**(**10**, menuTool.**showMenu**(primaryStage, label1, secondSceneObj), button1, label1);

vbox1.**getStyleClass**().**add**(**"main\_content1"**);

vbox1.**setPadding**(**new** **Insets**(**10**));

vbox1.**setAlignment**(Pos.**CENTER**);

borderPane1 = **new** **BorderPane**();

borderPane1.**setCenter**(vbox1);

scene = **new** **Scene**(borderPane1);

scene.**getStylesheets**().**add**(**"file:style1.css"**);

primaryStage.**setScene**(scene);

primaryStage.**show**();

}

}

Syntax in **MenuTool.java**

**package** application;

**import** javafx.stage.Stage;

**import** javafx.scene.control.Label;

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

**import** javafx.scene.control.MenuBar;

**import** javafx.scene.control.Menu;

**import** javafx.scene.control.MenuItem;

**import** javafx.event.ActionEvent;

**import** javafx.event.EventHandler;

**public** **class** **MenuTool** {

**public** **MenuTool**() {

**System**.**out**.**println**(**""**);

}

**public** **MenuBar** **showMenu**(**Stage** primaryStage, **Label** label1, **SecondScene** secondSceneObj) {

**MenuBar** **menuBar1** = **new** **MenuBar**();

**Menu** **menu1** = **new** **Menu**(**"⏬ Menu"**);

**MenuItem** **menuItem1** = **new** **MenuItem**(**"1. Image"**);

**MenuItem** **menuItem2** = **new** **MenuItem**(**"2. Tools"**);

**MenuItem** **menuItem3** = **new** **MenuItem**(**"3. Exit"**);

menu1.**getItems**().**addAll**(menuItem1,menuItem2,menuItem3);

menuBar1.**getMenus**().**add**(menu1);

menuItem1.**setOnAction**(**event**->{

secondSceneObj.**secondScene**();

label1.**setText**(**"Result: "**+menuItem1.**getText**());

});

menuItem2.**setOnAction**(**event**->{

label1.**setText**(**"Result: "**+menuItem2.**getText**());

});

menuItem3.**setOnAction**(**event**->{

primaryStage.**close**();

});

**return** menuBar1;

}

}

Syntax in **SecondScene.java**

**package** application;

**import** javafx.scene.Scene;

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

**import** javafx.scene.image.Image;

**import** javafx.scene.image.ImageView;

**import** javafx.scene.layout.BorderPane;

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

**import** javafx.stage.Stage;

**public** **class** **SecondScene**{

**public** **SecondScene**() {

**System**.**out**.**println**(**""**);

}

**public** **void** **secondScene**() {

**Stage** **stage2** = **new** **Stage**();

**Image** **image1** = **new** **Image**(**"file:wallpaper1.jpg"**);

**ImageView** **imageView1** = **new** **ImageView**(image1);

imageView1.**setPreserveRatio**(**true**);

imageView1.**setFitWidth**(**500**);

imageView1.**setFitHeight**(**500**);

**Button** **closeButt** = **new** **Button**(**"X"**);

closeButt.**setStyle**(**"-fx-background-color:red;-fx-text-fill:white;-fx-font-size:25px;"**);

closeButt.**setOnAction**(**event**->{

stage2.**close**();

});

**VBox** **vbox1** = **new** **VBox**(**10**, imageView1);

**VBox** **vbox2** = **new** **VBox**(**10**, closeButt);

**BorderPane** **borderPane2** = **new** **BorderPane**();

borderPane2.**setCenter**(vbox1);

borderPane2.**setRight**(vbox2);

**Scene** **scene2** = **new** **Scene**(borderPane2);

stage2.**setScene**(scene2);

stage2.**showAndWait**();

}

}

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