BÁO CÁO THỰC HÀNH LAB 5  
LẬP TRÌNH HƯỚNG ĐỐI TƯỢNG

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# 1. Swing components

## 1.1. AWTAccumulator

A screen shot of a computer program

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Figure : Source code of AWTAccumulato (1)

A screen shot of a computer program

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Figure : Source code of AWTAccumulato (2)

A screenshot of a computer

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Figure : AWT Accumulator

## 1.2. SwingAccumulator

A screen shot of a computer program

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Figure : Source code of SwingAccumulator (1)

A screen shot of a computer program

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Figure : Source code of SwingAccumulator (2)

A screenshot of a computer

Description automatically generated

Figure : SwingAccumulator

# 2. Organizing Swing components with Layout Managers

## 2.1. Create class NumberGrid

A computer screen shot of a program code

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Figure : NumberGrid source code(1)

## 2.2. Adding buttons

A screen shot of a computer program

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Figure : NumberGrid source code(2)

## 2.3. Complete inner class ButtonListener

A computer screen shot of a program code

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Figure : NumberGrid source code(3)

## 2.3. Demo

A computer screen shot of a code

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A screenshot of a number grid

Description automatically generated

Figure : Number Gird

# 3. Create a graphical user interface for AIMS with Swing

## 3.1. View Store Screen

### 3.1.1. Create the StoreScreen class

A black background with white text

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Figure : Declaration of StoreScreen class

### 3.1.2. The NORTH component

A screen shot of a computer code

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Figure : createNorth() source code

A computer screen shot of a program code

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Figure : createMenuBar() source code

A screen shot of a computer code

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Figure : createHeader() source code

### 3.1.3. The CENTER component

A screen shot of a computer code

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Figure : createCenter() source code

### 3.1.4. The MediaStore class

A screen shot of a computer program

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Figure : MediaStore source code

### 3.1.5. Putting it all together

A computer screen shot of a program code

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Figure : StoreScreen constructor source code

# 3.2. Adding more user interaction

A screen shot of a computer

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Figure : MediaStore lass source code(1)

A computer screen shot of a program code

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Figure : MediaStore lass source code(2)

A screen shot of a computer code

Description automatically generated

Figure : MediaStore lass source code(3)

A screenshot of a computer screen

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Figure : View Store Screen

# 4. JavaFX API

## 4.1. Create the FXML file

## Step 1. Configuring the BorderPane – the root element of the scene

A computer screen shot of a white square

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Figure : Configuring the BorderPane

Step 2. Adding the Vbox

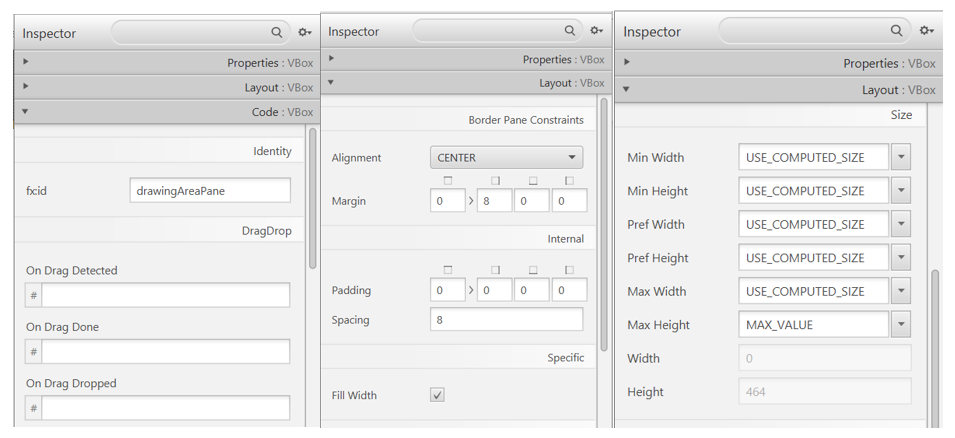


Figure : Configuring the VBox

Step 3. Adding the Pane



Figure : Configuring the Pane

Step 4. Adding the Button

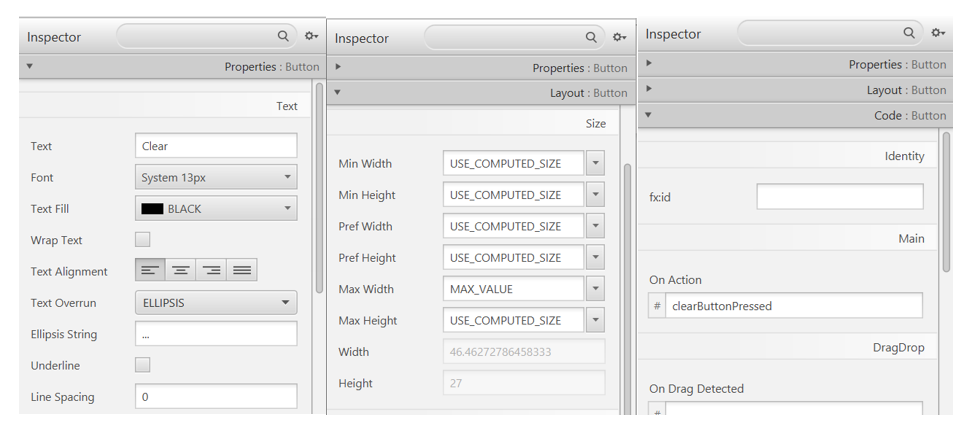


Figure : Configuring the Button

Preview:

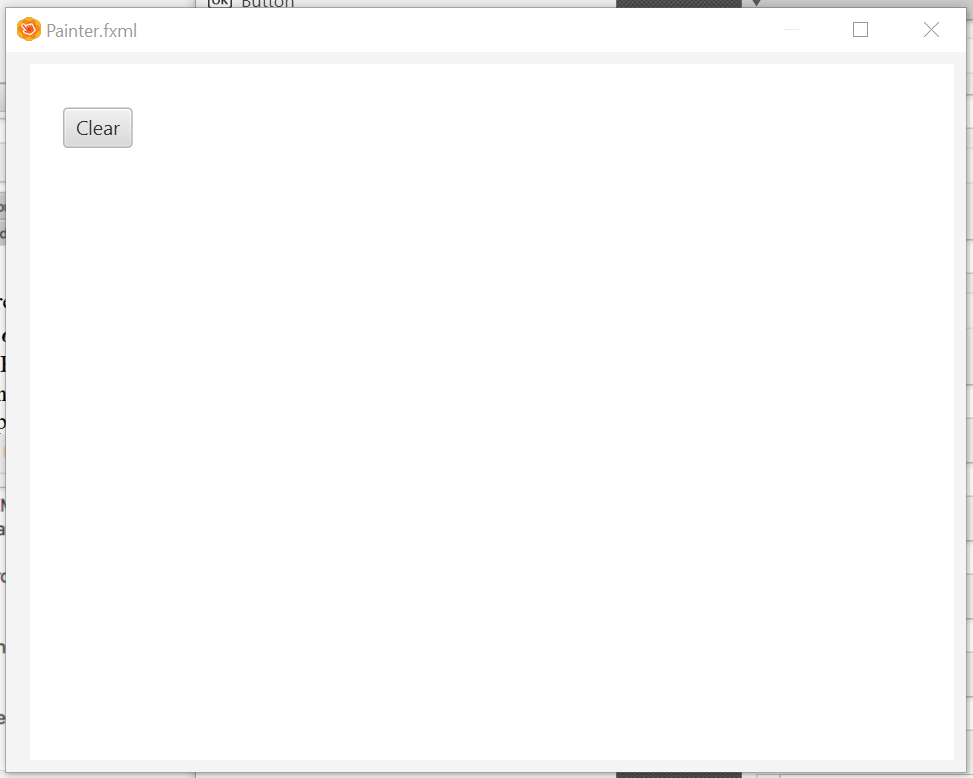


Figure : Preview in Window

A screen shot of a computer program

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Figure : Source code of Painter.fxml (2)

A screen shot of a computer code

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Figure : Source code of Painter.fxml (3)

4.2. Create the controller class

A screenshot of a computer program

Description automatically generatedFigure : Source code of PainterController Class

## 4.3. Create the application

A screen shot of a computer program

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Figure : Painter source code

## 4.4. Practice exercise

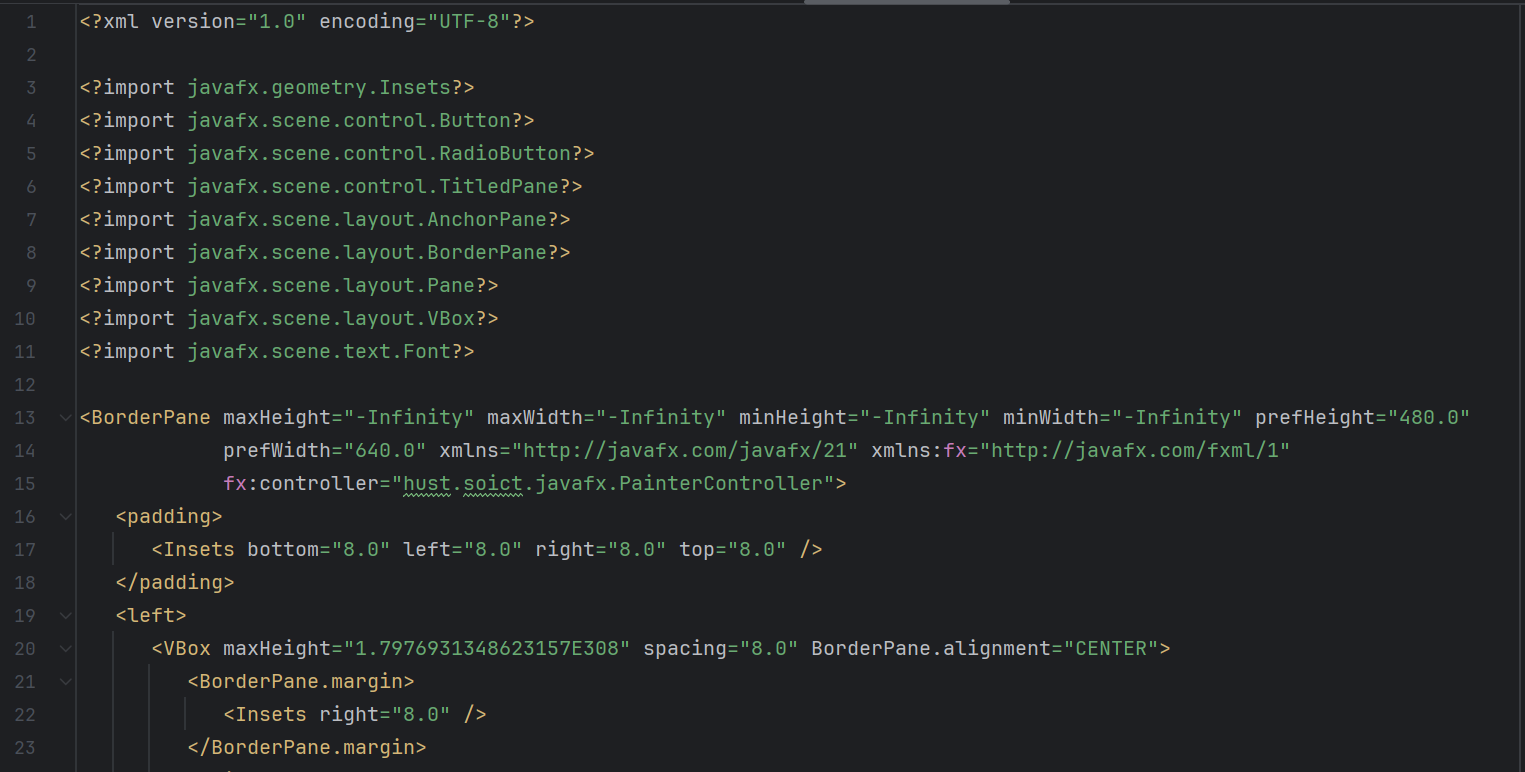


Figure : Source code of Painter.fxml update (1)

A screen shot of a computer code

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Figure : Source code of Painter.fxml update (2)

A screen shot of a computer code

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Figure : Source code of Painter.fxml update (3)

A screenshot of a computer

Description automatically generated

Figure : Painter with Eraser

# 5. Setting up the View Cart Screen with ScreenBuilder

A screen shot of a computer program

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Figure : Source code of Cart.fxml (1)

A screen shot of a computer program

Description automatically generated

Figure : Source code of Cart.fxml (2)

A screen shot of a computer program

Description automatically generated

Figure : Source code of Cart.fxml (3)

A screen shot of a computer program

Description automatically generated

Figure : Source code of Cart.fxml (4)

A black screen with green and blue text

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Figure : Source code of Cart.fxml (5)

A screenshot of a computer

Description automatically generated

Figure : View Cart Screen

# 6. Integrating JavaFX into Swing application – The JFXPanel class

A screen shot of a computer screen

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Figure : Source code for CartScreen(1)

A computer screen shot of a code

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Figure : Source code for CartScreen(2)

# 7. View the items in cart – JavaFX’s data-driven UI

A screen shot of a computer

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Figure : Source code for CartScreenController (1)

A screen shot of a computer program

Description automatically generated

Figure : Source code for CartScreenController (3)

# 8. Updating buttons based on selected item in TableView – ChangeListener

A screen shot of a computer code

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Figure : Modified initialize() method

A screen shot of a computer code

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Figure : Source code of updateButtonBar()

# 9. Deleting a media

A screen shot of a computer program

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Figure : Handle remove media

# 10. Filter items in cart – FilteredList

A computer screen with white text

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Figure : Creat corresponding attributes in the controller

A computer screen with text

Description automatically generated

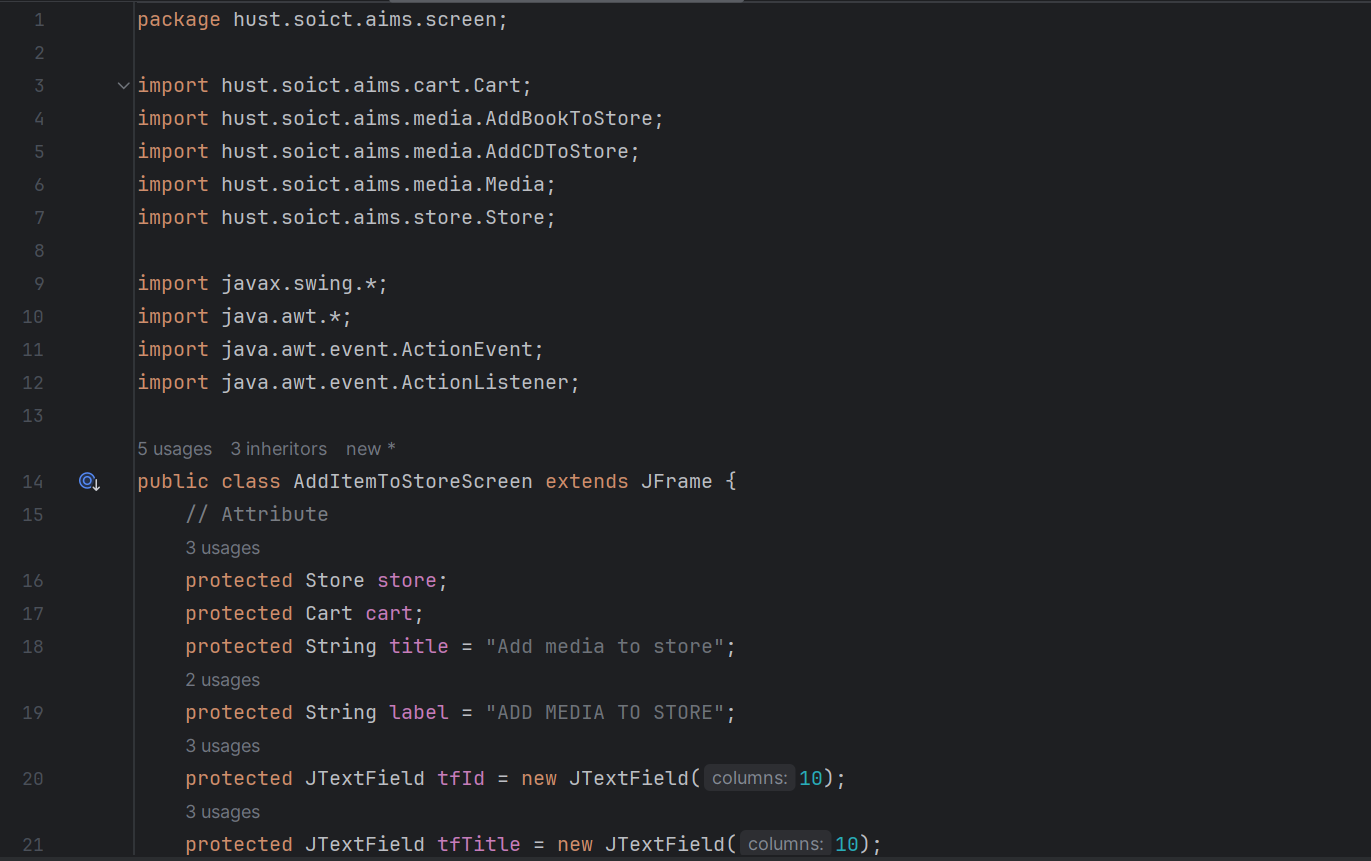
Figure : Adding ChangListener for tfFilter in initialize()

A screen shot of a computer code

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Figure : Source code of showFilteredMedia()

# 11. Complete the Aims GUI application



A screen shot of a computer

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A screen shot of a computer program

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A screen shot of a computer screen

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A screen shot of a computer screen

Description automatically generated

A computer screen shot of a program

Description automatically generated

# 12. Use case Diagram

A diagram of a person with a person's figure

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Figure : UseCase Diagram Customer

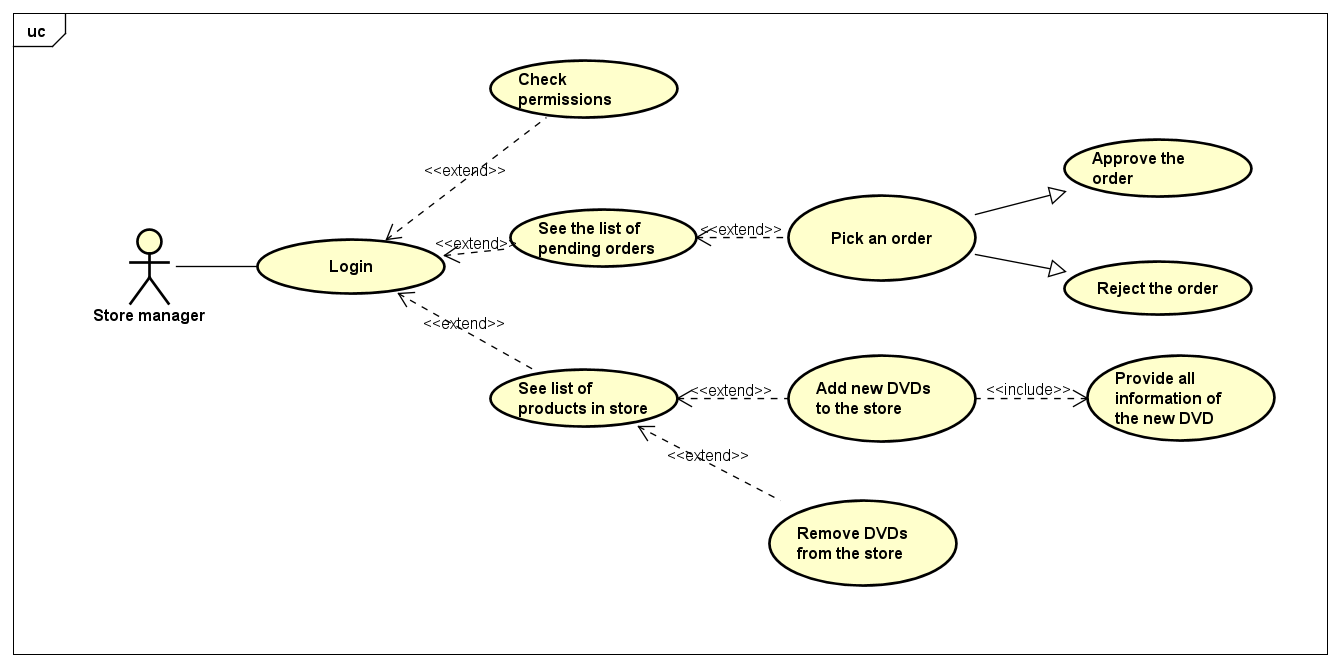


Figure : UseCase Diagram Store manager

# 13. Class Diagram

A diagram of a computer

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Figure : Class Diagram update