LAB REPORT

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**Lab 05: GUI Programming**

1. Swing components:
   1. AWTAccumulator
      1. Create class AWTAccumulator with the source code as below
      2. 1.1.2. Explanation
   2. SwingAccumulator
      1. Create class SwingAccumulator with the source code as below:
      2. Explanation
   3. Compare Swing and AWT elements
2. Organizing Swing components with Layout Managers
   1. Swing top-level and secondary-level containers
   2. Using JPanel as secondary-level container to organize components
      1. Create class NumberGrid
      2. Adding buttons
      3. Complete inner class ButtonListener
3. Create a graphical user interface for AIMS with Swing
   1. View Store Screen
      1. Create the StoreScreen class
      2. The NORTH component
      3. The CENTER component
      4. The MediaStore class
      5. Putting it all together
   2. Adding more user interaction
4. JavaFX API
   1. Create the FXML file
      1. Create and open the FXML file in Scene Builder from Eclipse
      2. Building the GUI
   2. Create the controller class
   3. Create the application
   4. Practice exercise
5. Setting up the View Cart Screen with ScreenBuilder
   1. Setting up the BorderPane
   2. Setting up the TOP area
   3. Setting up the CENTER area
   4. Setting up the RIGHT area
6. Integrating JavaFX into Swing application – The JFXPanel class
7. View the items in cart – JavaFX’s data-driven UI
8. Updating buttons based on selected item in TableView –  
   ChangeListener
9. Deleting a media
10. Filter items in cart – FilteredList
11. Complete the Aims GUI application
12. Check all the previous source codes to catch/handle/delegate runtime  
    exceptions
13. Create a class which inherits from Exception
    1. Create new class named PlayerException
    2. Raise the PlayerException in the play() method
    3. Update play() in the Playable interface
    4. Update play() in CompactDisc
14. Update the Aims class

● The Aims class must be updated to handle any exceptions generated when the play() methods are called. What happens when you don’t update for them to catch?

- The Media class stopped working and so does other classes that use .play() (Error not handled error)

1. Modify the equals() method of Media class
2. Reading Document
3. Update Aims class diagram