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
15. Modify the **equals()** method of **Media** class
16. Reading Document
17. Update Aims class diagram