EOEX Academy
Sicolo School of Code

Java Programming 101
(GUI Programming)
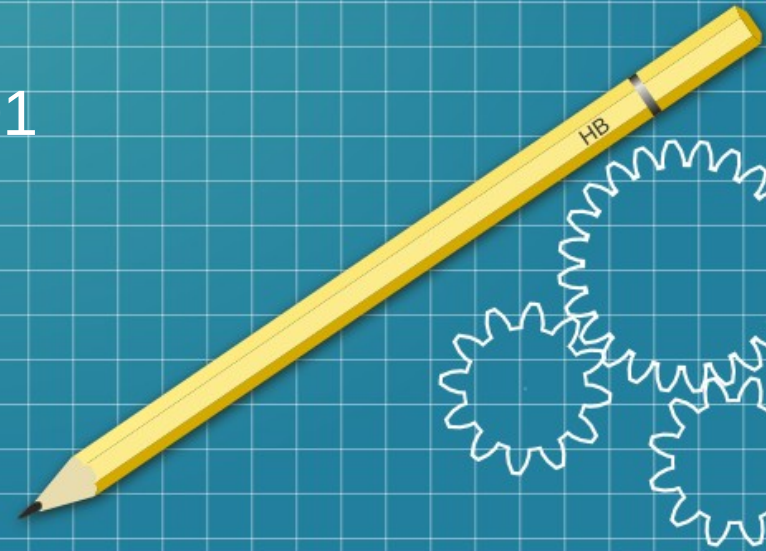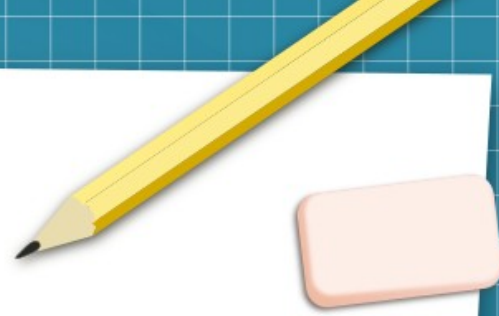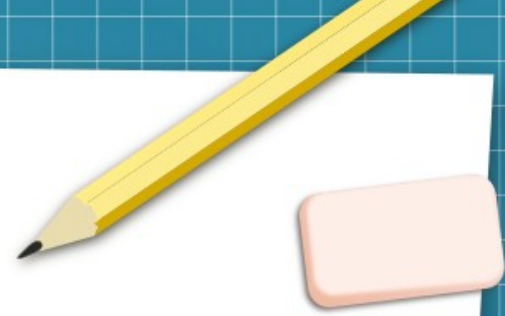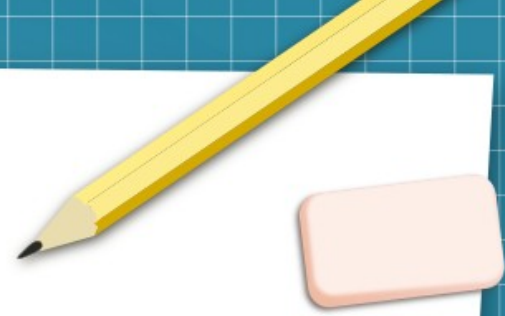
Table of Contents

Resources

- Personal Computer
- Operating System (Linux recommended)
- JDK (7+)
- VSCode

Pre-Requisites

- Knowledge of:
  - Computer Technology
  - Programming basics (variables, functions, loops, conditions, libraries, etc..)
  - OOP concepts (Class, Object, Instance, Access modifiers, instance variables, instance methods)
  - Computer file system organization
  - Backup storage

Concept 1: JFrame
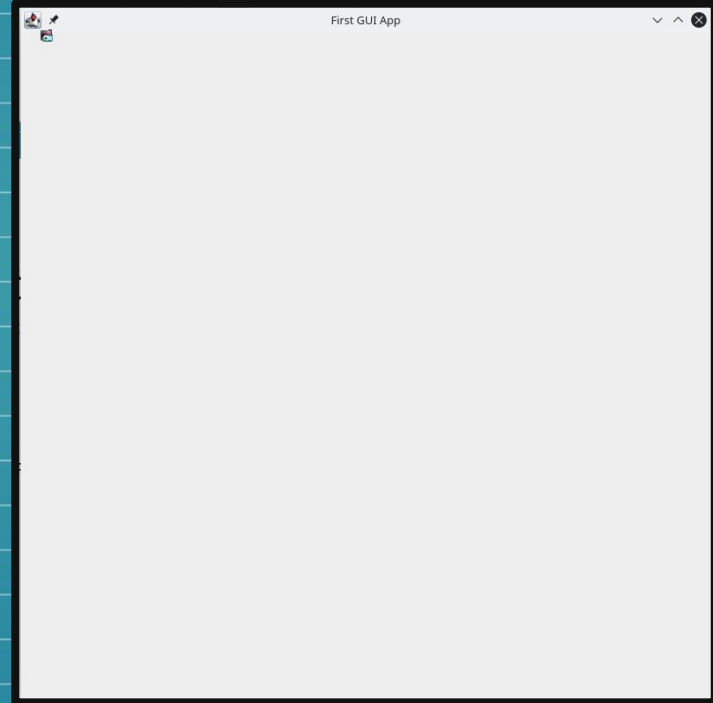
- Creates the main GUI app container

- JFrame a = new JFrame("First GUI App");

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- a.setSize(800,800);
    - a.setLayout(null);
    - a.setVisible(true);
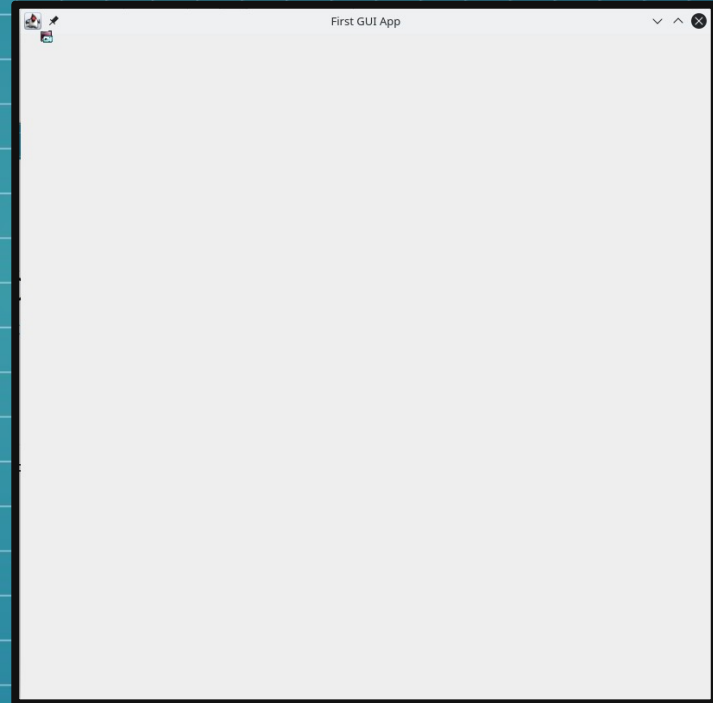
Concept 2: JTextField

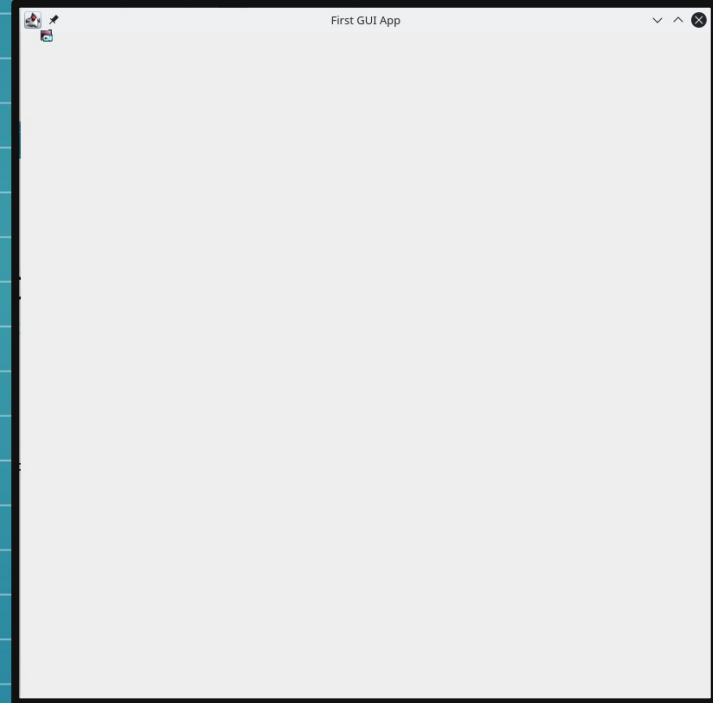- Creates an instance of an object component of the GUI app: Text Field

- JTextField b = new JTextField("edureka");

- b.setBounds(50,20,200,30);

Concept 3: JButton

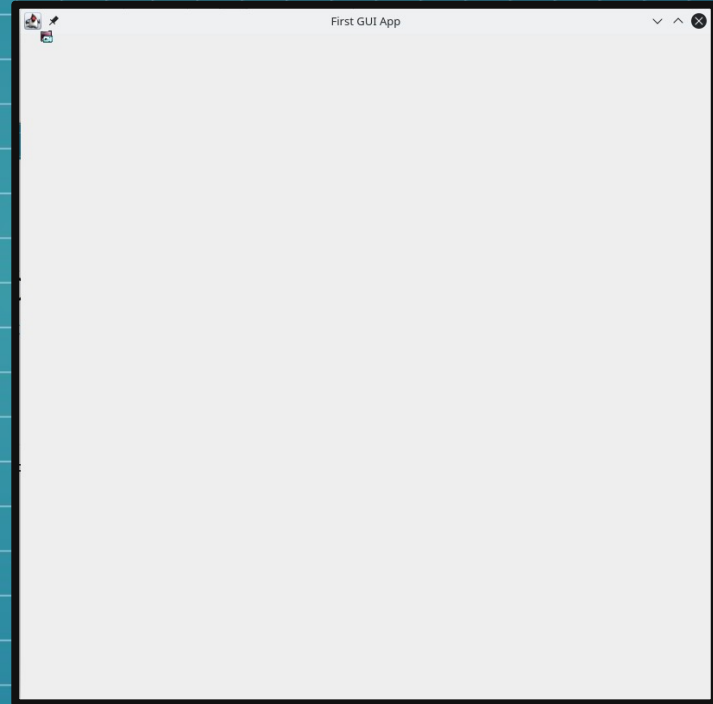- Creates an instance of an object component of the GUI app: Button

- JButton c = new JButton("click me");

- c.setBounds(50,60,200,30);

Concept 4: JScrollBar

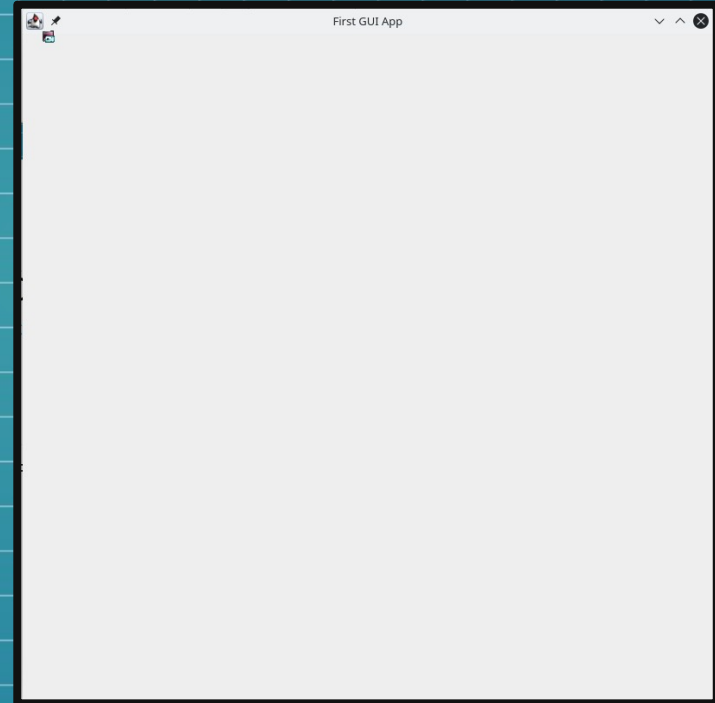- Creates an instance of an object component of the GUI app: Button

- JScrollBar d = new JScrollBar();

- d.setBounds(50,120,40,90);

Concept 5: JMenu

- Creates an instance of an object component of the GUI app: Menu


- JMenuBar m1 = new JmenuBar();JMenu menu = new Jmenu("options");
  - JMenuItem a1 = new JMenuItem("example");
    - JMenuItem a2 = new JMenuItem("example1");
    - menu.add(a1);
    - menu.add(a2);
  - m1.add(menu);

Concept 6: Dynamic List

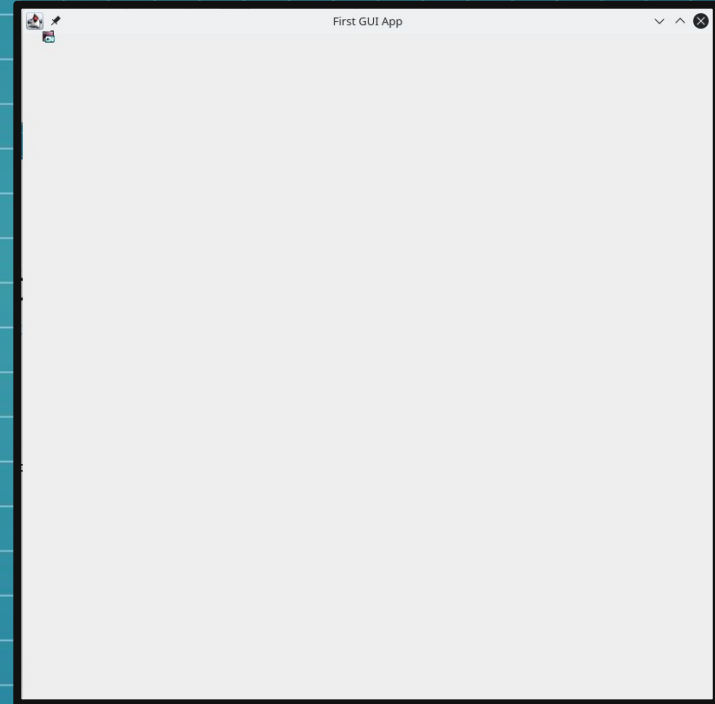- Creates an instance of an object component of the GUI app: List

- DefaultListModel<String> l = new DefaultListModel< >();

- l.addElement("first item");

- l.addElement("second item");

- JList<String> e = new JList< >(l);

- e.setBounds(50,300,75,75);

First GUI App
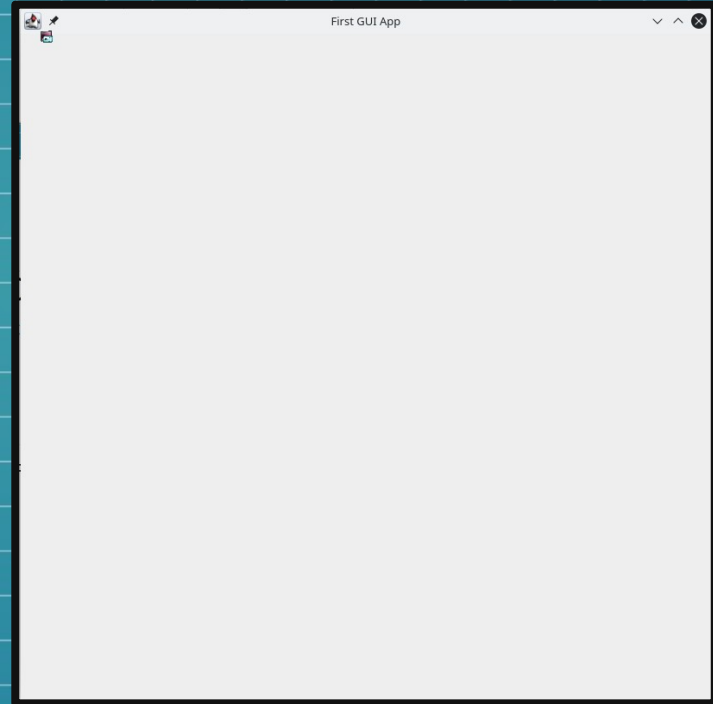
Concept 7: JLabel

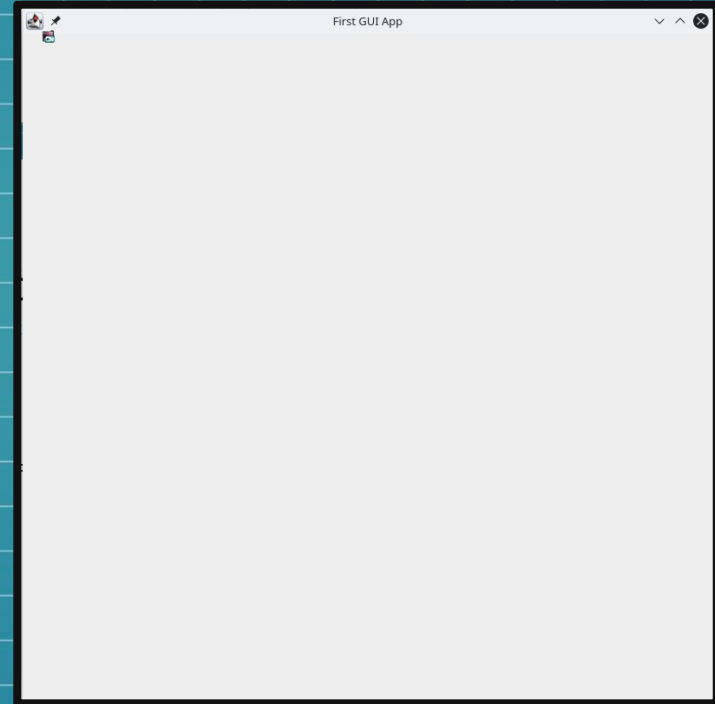- Creates an instance of an object component of the GUI app: Label

- JLabel b1 = new JLabel("edureka");

- b1.setBounds(50,400,90,20);

First GUI App

Concept 8: JComboBox

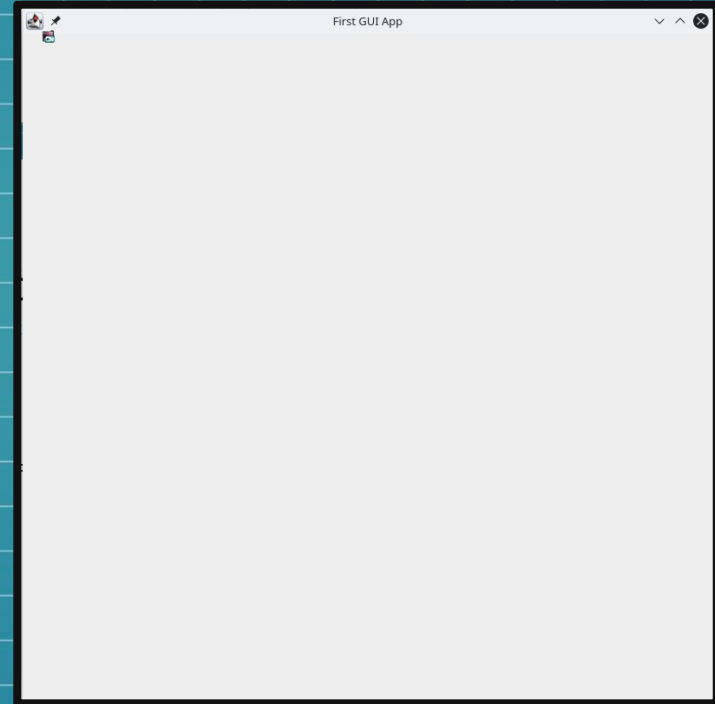- Creates an instance of an object component of the GUI app: ComboBox

- String courses[] = { "core java","advance java", "java servlet"};

- JComboBox f = new JComboBox(courses);

- f.setBounds(50,500,90,20);

First GUI App

Concept A: GUI Chat Frame

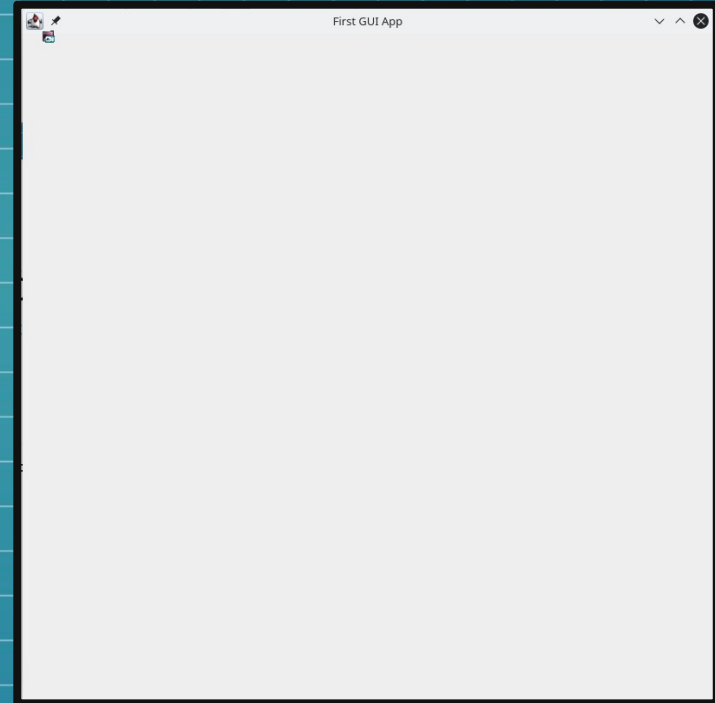- Create a GUI component using a combination of various sub-components: GUI Chat Frame

  - GUIChatFrame MyChatFrame = new GUIChatFrame();

  - MyChatFrame.initChatFrame();

Concept B: GUI Calculator

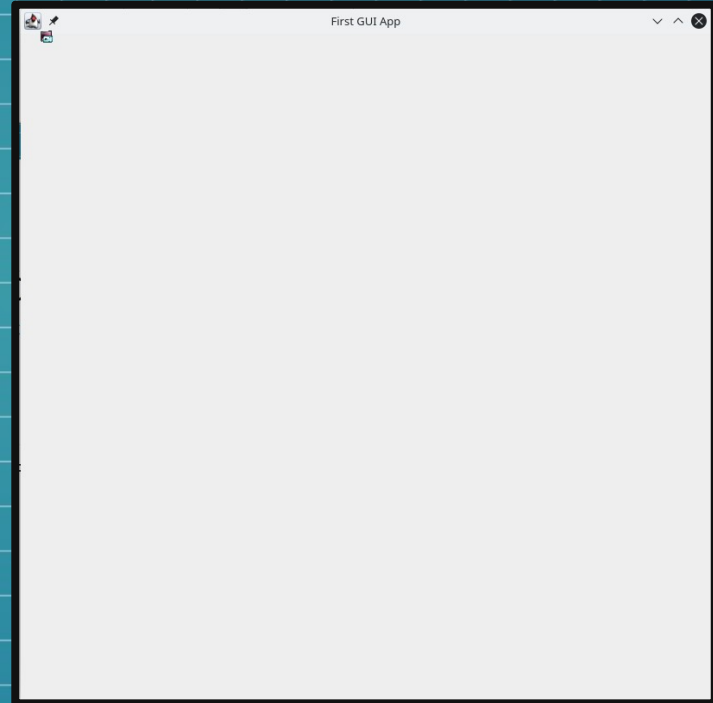- Create a GUI component using a combination of various sub-components: GUI Calculator

- GUICalculator MyGUICalculator = new GUICalculator();

- MyGUICalculator.launchCalculator();

First GUI App

Concept C: GUI Menu

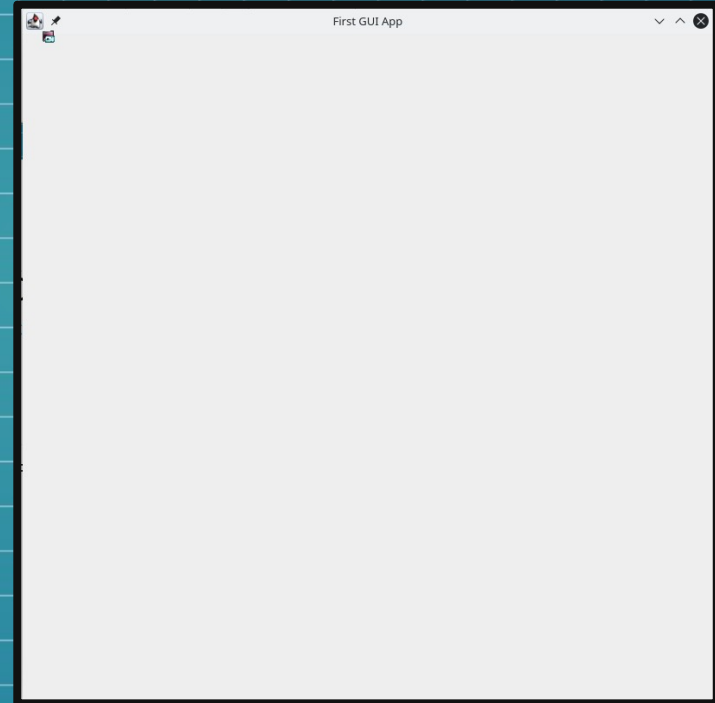- Create a GUI component using a combination of various sub-components: GUI Menu

- GUIMenu MyGUIMenu = new GUIMenu();
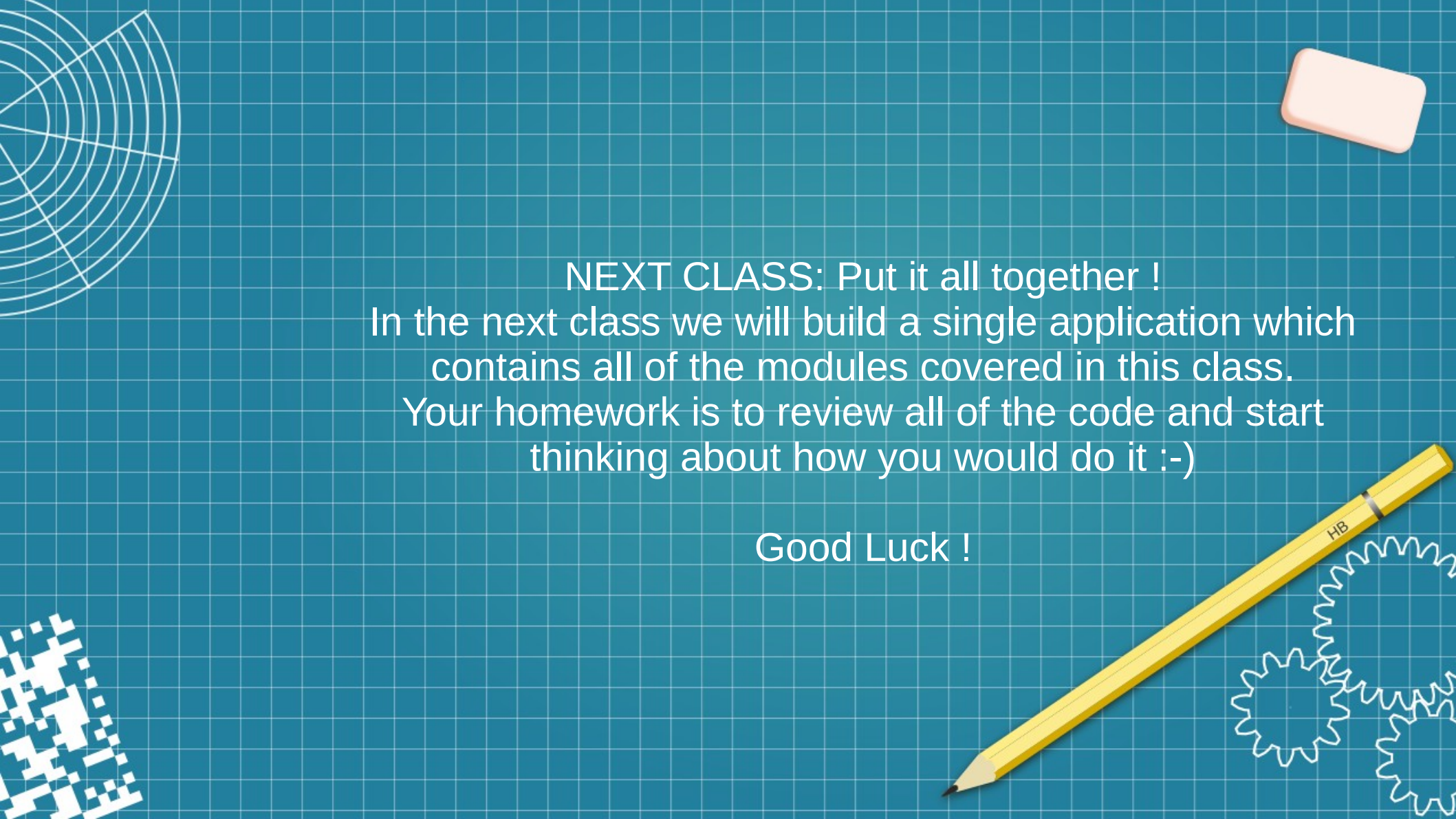
- MyGUIMenu.launchGUIMenu();

First GUI App

Concept D: GUI Game

- Create a GUI component using a combination of various sub-components: GUI Game

- GUIGame MyGUIGame = new GUIGame();
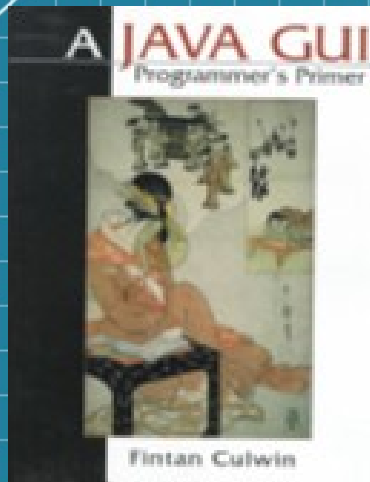
- MyGUIGame.launchGUIGame();

NEXT CLASS: Put it all together !
In the next class we will build a single application which
contains all of the modules covered in this class.
Your homework is to review all of the code and start
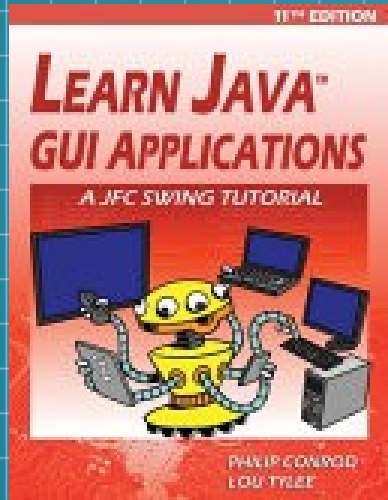thinking about how you would do it :-)
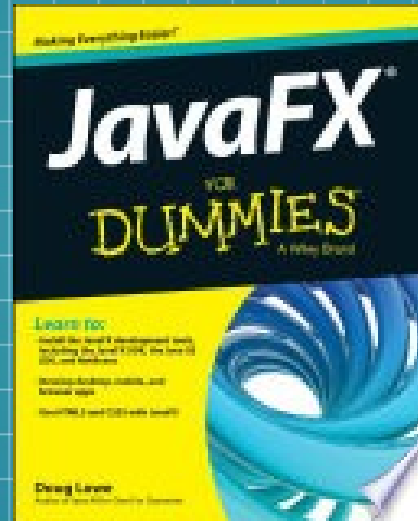
Good Luck !

Recommended Literature

A Java GUI Programmer's Primer   **Learn Java GUI Applications**   **JavaFX For Dummies**