

Assignment - 04

Problem Statement : Transform the above assignments from Command Line System to GUI based system.

Objective → To understand swing class & GUI based classes in Java.

Outcome → One will be able to create well formed GUI using the Java Swing framework.

Theory

- Swing is a part of Java Foundation Classes (JFC)
- The Swing Framework is used to build Graphical User Interface.
- It contains a large set of Components under it
- Each sub class provides large flexibility and rich functionality
- Swing consists of 2 types of containers
 - 1) windows
 - 2) JComponents
- Window → These containers create separate window for themselves.
 - e.g : frames, dialog boxes

→ JComponents - These containers are part of window containers

e.g. → JText, JButton, JList etc.

Syntax

Some of the most commonly used methods of Swing are as follows :-

- 1> public void add (Component c) -
adds component c to the active Component.
- 2> public void setSize (int width, int height) -
used to set the size of the component.
- 3> public void setLayout (LayoutManager) -
used to select the type of layout - flow, box etc. for the given component.
- 4> public void setVisible (boolean b) -
used to toggle the visibility of the active component.

Data Structures / Algorithms used -

- 1) JFrame - window for complete GUI.
- 2) JLabel - to display text data on screen
- 3) JTextField - to take text input from user
- 4) JButton - provide clickable button
- 5) JRadioButton - provide RadioButton for choice
- 6) JCombobox - provide drop down Menu

Test Cases

	Input	Expected o/p	Actual o/p	Result
1)	Client 1 - Register the student	Student added	Student added	Success
2)	Client 2 - select the available colleges and branches	Selected Colleges & Branches added	Selected Colleges & Branches added	Success
3)	College - 1 view Merit list	Merit list corresponding to college showing	Merit list corresponding to college shown	Success

7. > Admin

Declare

Result

Result

Success

Result

declared

declared

Conclusion:

Thus, we were able to transform our Command Line Program into a GUI based application using Java Swing.

Student Main Page

User - Id :

Password :

SIGN IN

CLEAR

SIGN UP

Fill the Following Information

College Name

COEP

Branch Name

Aeronautical Engineering

Priority :

6

Add

Submit

College :

Branch :

Delete

	Preference	College	Branch
1		Pict	Computer Science
2		COEP	Computer Science
3		VIT	Computer Science
4		VIT	Civil Engineering
5		Pict	Civil Engineering

Back

Merit List

Branch Name

Computer Science

Student Id	Name	Marks
1003	Rahul	240
1001	Abhishek	220
1002	Anmol	185

Back

Select College and Branches

Pict

Computer Science

Search

SID	Name	Marks
1003	Rahul	240
1001	Abhishek	220