

United International University

CSE 1116 - Final Exam - Set B

Write your name and ID on the question paper. Marks are on the right. Return question.

Q1. Implement a GUI using Java Swing that does the following tasks: **[15 Marks]**

- a) **Components:** 2 text fields and 1 button labelled **CONCAT**
- b) User can write in both the text fields
- c) When the Concat button is clicked, the text of the second field is appended to the text in the first field.

Fig: Before Clicking Button

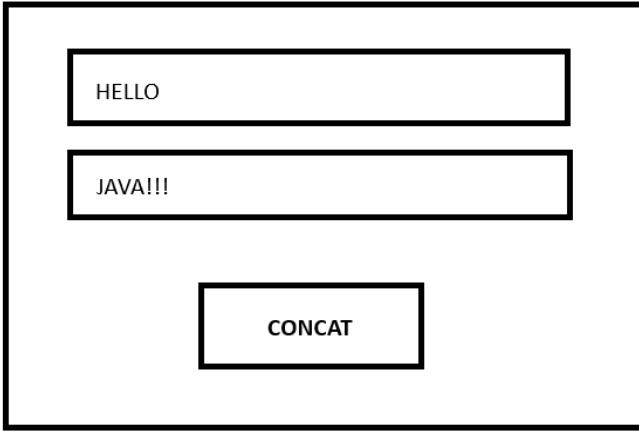
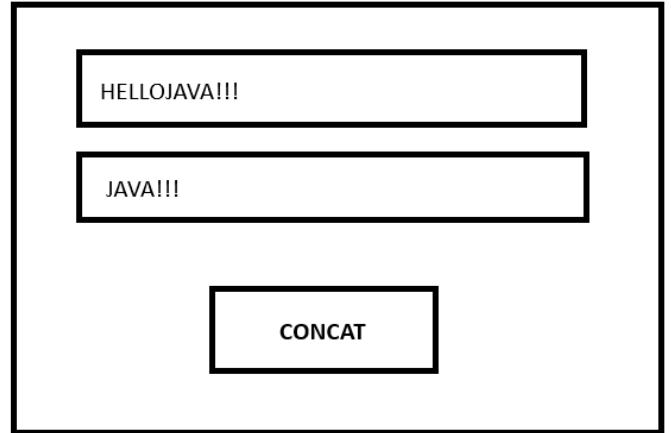


Fig: After Clicking Button



Q2. Write a **Java** program that implements the following system:

[10 Marks]

- a) **Interface Playable** – Method void play(String instrument)
- b) **Abstract Class MusicSchool** that uses Playable
 - **Attributes:** String name, double fee
 - **Constructor:** accepts both parameters
 - **Implement** the play(String instrument) method in the following way:
 - If the instrument is "**Guitar**" or "**Piano**" or "**Violin**", print a message saying that the instrument is being played.
 - Otherwise, throw a **user-defined exception** named **InvalidInstrumentException** with the **message:** "**Instrument not taught here**".
 - Declare an **abstract method** void perform(String instrument).
- c) **Class MusicAcademy** which extends **MusicSchool**
 - **Override** the perform(String instrument) method to print a message stating that the given instrument performance is taking place.
- d) **Class MusicProgram** (contains the **main** method)
 - Create an object of MusicAcademy.
 - Call the play() and perform() methods with valid and invalid instruments.
 - **Handle the thrown exception** for **invalid instruments** and **print** the exception message.