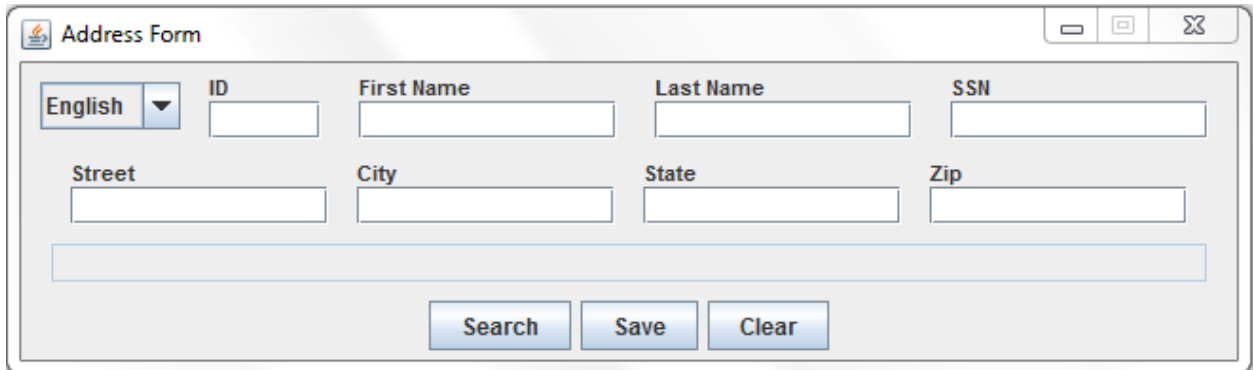


### Lab 13-3 Extra Credit: Intro to Localization

In this lab you will upgrade your work in Lab 13-2 so that it supports localization for two languages other than English.

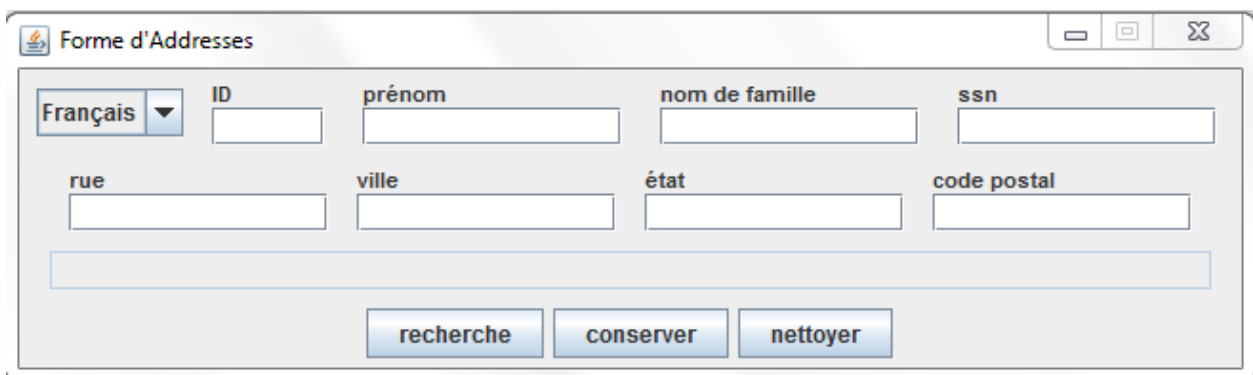


The screenshot shows a window titled "Address Form" with a standard Windows-style title bar (minimize, maximize, close buttons). Inside the window, there is a language dropdown menu in the top-left corner currently set to "English". Below the dropdown, there are five input fields arranged in two rows: "ID", "First Name", "Last Name", and "SSN" in the first row; "Street", "City", "State", and "Zip" in the second row. A long, empty text input field is located below these fields. At the bottom of the window, there are three buttons: "Search", "Save", and "Clear".

The dropdown in the upper left part of the GUI is supposed to be responsive to user-selection of two other languages: French and Chinese.



The screenshot shows the same application window but with the language set to Chinese. The title bar now says "地址表格". The language dropdown is set to "中文". The input fields are labeled in Chinese: "学号" (Student ID), "名字" (First Name), "姓氏" (Last Name), "社会安全号" (SSN), "街道" (Street), "城市" (City), "州" (State), and "邮编" (Zip). The buttons at the bottom are labeled "查找" (Search), "保存" (Save), and "清除" (Clear).



The screenshot shows the application window with the language set to French. The title bar now says "Forme d'Addresses". The language dropdown is set to "Français". The input fields are labeled in French: "ID", "prénom", "nom de famille", "ssn", "rue", "ville", "état", and "code postal". The buttons at the bottom are labeled "recherche" (Search), "conserver" (Save), and "nettoyer" (Clear).

In this application, *all strings* are localized. This means that any string that could appear on the GUI – even error messages and success messages – appear in the language selected by the user.

Address Form

English ▼ ID First Name Last Name SSN

Street City State Zip

Only the ID field can be searched, and it must be nonempty.

Search Save Clear

地址表格

中文 ▼ 学号 名字 姓氏 社会安全号

街道 城市 州 邮编

只能通过ID查找,且ID非外,空

查找 保存 清除

The strings have already been translated for you. They are located in the folder `<package-name>.resources`, following certain naming conventions. To achieve this functionality, you will need to learn a little about how Java uses *resource bundles*. You can figure it out by working through the sample code `SimpleL10n` located in the folder `lab_13_3EC`. You will also need to learn about how to handle events coming from a dropdown box.