# Programming Assignment 4
GUI- Typing Tutor

DUE Friday June 9, 2017 @ 11:59 pm

Typing quickly and correctly is an essential skill for working effectively with computers and the Internet. In this programming assignment, you'll build a GUI application that can help users learn to "touch type" (i.e., type correctly without looking at the keyboard). The application should display a virtual keyboard (shown below) and should allow the user to watch what he or she is typing on the screen without looking at the actual keyboard. Use *JButtons* to represent the keys. As the user presses each key, the application highlights the corresponding *JButton* on the GUI and adds the character to a *JTextArea* that shows what the user has typed so far.

Hint: To highlight a *JButton*, use its *setBackground* method to change its background color. When the key is released, reset its original background color. You can obtain the *Jbotton*'s original background color with the *getBackground* method before you change its color.
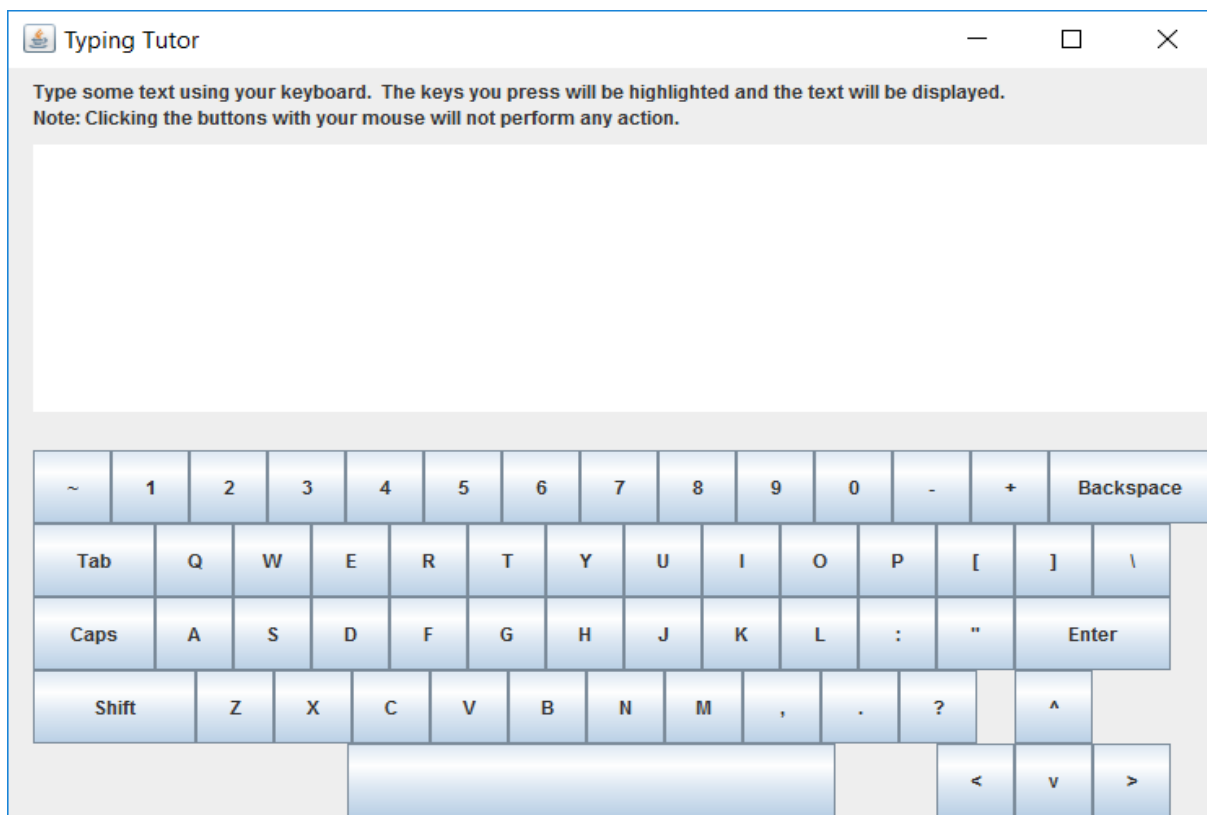
You can test your program by typing a pangram—a phrase that contains every letter of the alphabet at least once—such as "The quick brown fox jumped over a lazy dog." You can find other pangrams on the web. To make the program more interesting you could monitor the user's accuracy. You could have the user type specific phrases that you've prestored in your program and that you display on the screen above the virtual keyboard. You could keep track of how many keystrokes the user types correctly and how many are typed incorrectly. You could also keep track of which keys the user is having difficulty with and display a report showing those keys.

Note: We will need to submit on Canvas both **your code** and a **snapshot** of the execution of

your program in a zipped folder by **Friday, June 9th 2017 @ 11:59 pm**. **Late**

 submission will not be accepted.