```
* Project #1
* CS 2334, Section 10
* 9/9/13
* <P>
* This class represents a data system object, which reads in a list of magazines from
* a file. With that list, the user class can get the magazines either unfiltered, or
* filtered by name, publisher, or date range.
* </P>
* @version 1.0
*/
public class DataSystemGUI extends JFrame{
  //Instance Variables
  /** Text fields to receive input */
  private JTextField inputPublisher:
  private JTextField inputMagTitle;
  private JTextField inputStartDate;
  private JTextField inputEndDate;
  /** A button that initiates a new search */
  private JButton searchButton:
  /** A label that shows all magazines which fulfill the requirements laid out by the user
through the input fields */
  private JLabel displayLabel;
  /** The virtual data system that will be used */
  private DataSystem dataSystem;
  /**
   * Creates a new data system and sets up the GUI
   * <dt><b>Conditions:</b>
   * <dd>POST - The data system is created and the GUI is set up to use.
  public DataSystemGUI(){
  /* Mutator Methods */
   * Sets up the GUI
   * <dt><b>Conditions:</b>
```

```
* <dd>POST - The GUI is set up to use.
   */
  private void init(){
   * Reads in magazines given a file
   * @param fileName The path to the file
  public void loadMagazines(String fileName){
   * Opens the GUI
  public void open(){
   * Closes the GUI
  public void close(){
   * <P>
   * This class is used to listen for search events. That is, the user code wants to
search the magazine list
   * for magazines
   * </P>
   * @version 1.0
  private class SearchListener implements ActionListener, KeyListener{
    public void actionPerformed(ActionEvent event){
    public void keyPressed(KeyEvent event){
    public void keyReleased(KeyEvent event){
    public void keyTyped(KeyEvent event){
     * This method searches the data system for the proper magazines, then updates
the display label with its result.
     * <dt><b>Conditions:</b>
```