Announcements

- HW 1 due Monday in class
- Lab #2 is available on web site -- read it carefully before lab
- Willing/want to move out of Monday Aft. Lab?
Student Thesis Proposals

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Computer Science Colloquium
Friday, February 9
2:35PM
TCL 123, Wege

Computer Science Colloquium
Student Thesis Proposals
TCL 123, 2:35 Today
Today’s Plan

- Review
- More GUI components
- Mechanisms for network communications
import squint.*;
import javax.swing.*;

public class Class-name extends GUIManager {
    private final int WINDOW_WIDTH = width, WINDOW_HEIGHT = height;
    . . . additional instance variable declarations . . .

    public Class-name () {
        this.createWindow( WINDOW_WIDTH, WINDOW_HEIGHT );
        . . . instructions to create program's interface . . .
    }

    public void some-method-name() {
        . . . some-method's body . . .
    }

    public void some-other-method-name() {
        . . . some-other-method's body . . .
    }

    . . .
}

    . . .
Constructions

new JLabel( "Click on the button below" )
new JButton( "Click Here" )
new JTextField( 8 )

new type-of-thing-to-create( ... details ... )
contentPane.add( new JLabel( "Click on the button below" ) );
this.createWindow( WINDOW_WIDTH, WINDOW_HEIGHT );

actor . thing-to-do ( ... details/parameters ... );

noun?  verb?  object/subordinate phase?
Instance Variable Declarations

private JTextField noun1;
private int count;
private JLabel counterLabel;

private type-of-thing-name-will-identify name;
Assignment Statements

```java
firstNoun = new JTextField( 10 );
pluralNoun = new JTextField( 10 );

variable-name = expression-describing-value;
```
The Electors shall meet in their respective States, and vote by Ballot for two persons, of whom one at least shall not lie an Inhabitant of the same State with themselves. And they shall make a List of all the Persons voted for, and of the Number of Votes for each; which List they shall sign and certify, and transmit sealed to the Seat of the Government of the United States, directed to the President of the Senate. The President of the Senate shall, in the Presence of the Senate and House of Representatives, open all the Certificates, and the Votes shall then be counted. The Person having the greatest Number of Votes shall be the President, if such Number be a Majority of the whole Number of Electors appointed; and if there be more than one who have such Majority, and have an equal Number of Votes, then the House of Representatives shall immediately choose by Ballot one of them for President; and if no Person have a Majority, then from the five highest on the List the said House shall in like Manner choose the President. But in choosing the President, the Votes shall be taken by States, the Representation from each State having one Vote; a quorum for this Purpose shall consist of a Member or Members from two-thirds of the States, and a Majority of all the States shall be necessary to a Choice. In every Case, after the Choice of the President, the Person having the greatest Number of Votes of the Electors shall be the Vice President. But if there should remain two or more who have equal Votes, the Senate shall choose from them by Ballot the Vice-President.
Every day counts!

Click count: 0
Click count: 1
Click count: 2
MadLibs?
private JTextField noun;

noun = new JTextField( width-in-letters );

noun.getText();

noun.setText("New text to display");
private JTextField noun;

noun = new JTextField( width-in-letters );

noun.getText( );
noun.requestFocus( );
noun.setText( "New text to display" );
noun.selectAll( );
private JTextField noun;

noun = new JTextField( width-in-letters );

noun.getText();
noun.requestFocus();
noun.setText( “New text to display” );
noun.selectAll();
Be kind to your chair-footed bottles.
For a duck may be somebody’s knife,
Be kind to your bottles in basement
Where the weather is always fearsome
Well you may think that this is the candle.
Well it is.
private JTextArea storyDisplay;

storyDisplay = new JTextArea( height-in-lines, width-in-letters);

storyDisplay.setText( "New text" );

storyDisplay.append( "Text to add" );
NetConnections
private NetConnection toServer;

toServer =
    new NetConnection( server, port );
private NetConnection toServer;

toServer =
    new NetConnection( server, port );
private NetConnection toServer;

toServer = new NetConnection( server, port );

toServer.in.nextLine()

toServer.out.println( "USER tom" );

toServer.close( );
NetConnections

private NetConnection toServer;

toServer =
    new NetConnection( server, port );

display.append( toServer.in.nextLine() );
toServer.out.println( "USER tom" );
toServer.close( );
Dictionary Protocol

Connect to server on port 2686

Client can send:

- help
- show db
- define data-base-name word-to-define

Handy server running at dict.org
Summary

- We’ve covered a lot of ground in the last two days
- Basic structure of a class
  - class header, constructor, methods
  - importance of { }
- comments, style
Summary

Constructions

- `new typeOfObject ( actual params )`

Variables

- instance variables, local variables
- declarations and assignments
- (final) integer and String constants

Method invocations

- `objectName.methodName( actual params )`
- mutator methods (eg. `setText`), accessor methods (eg. `getText`
GUI components
- JLabel, JButton, JTextField, JPasswordField, JTextArea, JScrollPane, JPanel

Network components
- NetConnection

if toServer is a NetConnection:
- toServer.in.nextLine(), toServer.out.println()
- toServer.addMessageListener(this)
- dataAvailable(), connectionClosed()