

# Presentation Week3

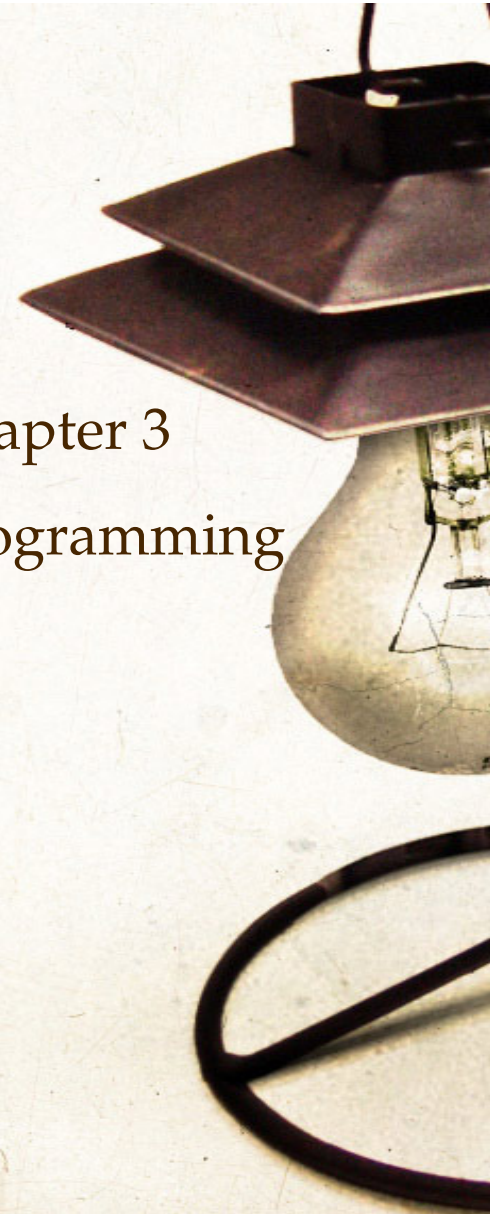
Presented by:  
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# Plans for week 3:

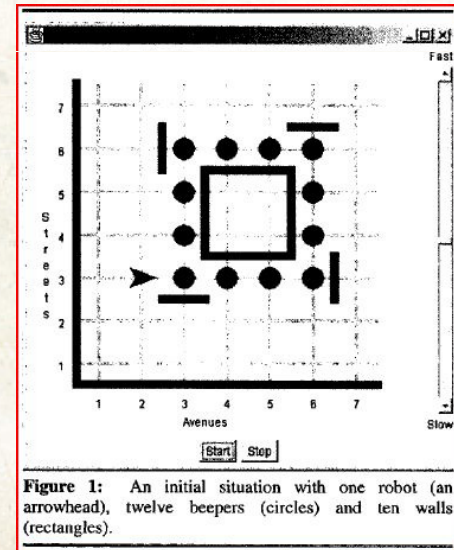
- Reading-Teaching CS1 with Karel the Robot
- Introduction to Programming Using Java- Chapter 3
- Problem Solving/Research Java Code and programming
- DMP Website- Uploaded
- Shapes Applet Project
  - Adding Icons to an applet
  - Drag and Drop (DnD)
  - Applying the Icons to an interactive panel



# Lit Review:

- Using interesting predefined classes to introduce the fundamentals of OOP followed quickly by the traditional fundamentals of iteration and selection, also using the same predefined classes
- Shift the paradigm from procedural programming to OOP
- Karel ++: *A General Introduction to the Art of OOP*
- Translate Karel++ and use Karel the Robot

Karel the Robot inhabits a simple world with streets, intersections and avenues. Robots carry beepers that may be placed on intersections. Several robots may exist in the same world.



# Lit Review(continue):

- Differences from previous Implementation and the New approach:

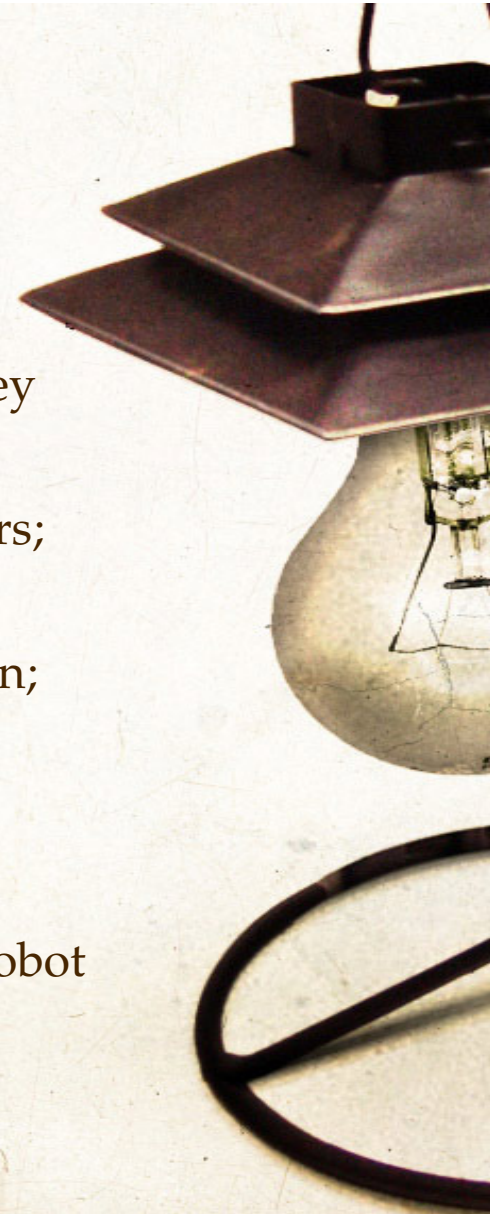
- i. Old uses Karel and Karel++; New uses Java
- ii. Old does not support parameters; Java uses objects, local and instance variables and threads.
- iii. Old integrated a development environment with simulator; New uses standard Java development environment.



# Lit Review(continue):

- Course Outline

- i. Week One: Describe Robot and the world they Inhabit. Introduce Objects and methods.
- ii. Week Two: Extend Robot class with behaviors; move left, move right..etc
- iii. Week Three: Introduce Selection and Iteration; value returning methods.
- iv. Week Four: Adding Parameters to methods.
- v. Week Five: Extending robots with instance variables; *DeliverRobot*, how many moves a robot takes to deliver a service



# Lit Review(continue):

- Discussions:
- Robots are overly used!
  - Robots are fun! Students learn and have fun!
- Course is learning about robots?!
  - Robots are tool to teach programming.
  - Visual representation of a subject makes it easier to learn



# Lit Review(continue):

- Future Plans:
  - i. Discuss attributes along with behaviors
  - ii. Adding richer collections of classes, more interaction with the environment.
  - iii. Adding GUI applications to enhance learning experience.

Becker is writing a book that starts off with Karel and also include all CS1 courses topics.

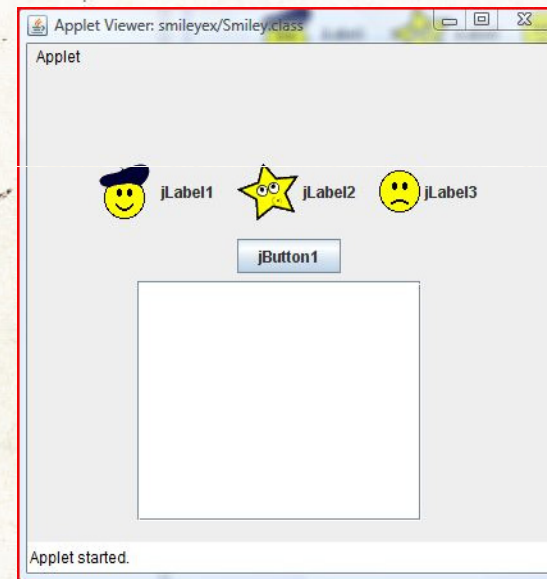
# Tasks:

- Documents:

- Introduction to Programming Using Java: Chapter 3

- Projects:

- Adding objects (icons) to form
  - Drag and Drop icons to panel
  - Drawing 3D shapes into canvas





## Accomplished:

- Readings
- DMP website

## Partially Accomplished:

- Shapes Applet Project



# What's learnt:

- Importing icons to labels in NetBeans
- Drag and Drop– how it works.



# Problems:

- Enable drop to a panel. The framework for drop is in place for the following components:

- JList
- JTable
- JTree

- How I am going about it?

- Google

- Sun Forums

- <http://forum.java.sun.com/forum.jspa?forumID=54>

- Mahjoob Forums

- <http://www.mahjoob.com/en/forums/forumdisplay.php?f=21>



## Week 4 Plans:

- Readings– Chapter 4, Lit Review
- How to add drop to a jEditorPane
- Update DMP website
- Play a few games



# References:

- Becker, Byon. *Teaching CS1 with Karel the Robot in Java*. Ontario, CA, 50-54.
- Sun Developer Network-- Forums*  
(<http://forum.java.sun.com/forum.jspa?forumID=54>)
- Mahjoob Tech Talk Forums  
(<http://www.mahjoob.com/en/forums/forumdisplay.php?f=21>)
- Editor Drop Target  
(<http://www.java2s.com/Code/Java/Swing-JFC/EditorDropTarget.htm>)
- Eck, D. J. *Introduction to Programming Using Java*. November 2007, Geneva, NY 1-676.

# The End

- Any questions or comments?

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