

Name: \_\_\_\_\_

## Java Project

Choose a project appropriate for 12 hours of work inside class (8 classes) and outside class (4 hours). Suggestions are attached. The teacher is available for guidance.

**PROPOSAL** due \_\_\_\_ 3/24/15 \_\_\_\_\_

Write a paragraph explaining what you want to do. The teacher must approve the project.

**PROJECT** due \_\_\_\_ 4/3/15 \_\_\_\_ (Note: 4/2 is yearbook in-school field trip) \_\_\_\_\_

Demonstrate your finished project to the teacher and classmates.

### Grading rubric

	Points
<i>Required elements (see below)</i>	15
Quality of code	5
Quality of algorithm & logic	5
Design, Planning	5
Complexity	5
Difficulty	Extra credit
Originality	5
Correctness	5
Executability: does it run?	5
Code comments, documentation, instructions, <b>and</b> javadoc	5
Positive attitude	5
Independence	part of resourcefulness grade
Helpfulness to others	part of participation grade
Timeliness	5
Grade	
	Out of 65 65 possible

<b>Required elements (choose 5 out of 7)</b>	Points (3 each)
File read that has useful information	3
File write that saves useful data that can be viewed or read back in	3
Arrays that do something useful	3
Methods, Return types (not just void)	3
Scanner	3
While loop where a 'while' loop is needed (and a 'for' loop is not)	3
Objects (use class lessons and peek into Chapter 8)	
	Out of 15 15 possible

## Java Project ideas

To find ideas, google “Computer Programming Projects” “AP Computer Programming Projects” “Computer Science Programming Projects” “Java Programming Projects” “Computer Science Programming Projects”

### **Projects must incorporate topics from the previous chapters.**

- Games:
  - Tic tac toe
  - Checkers
  - Chess (no AI)
- Chapter 3G Graphics project, with modifications
- Chapter 5 project:
  - Pig Latin
  - Hangman (without the dictionary)
  - Guess a number
  - Rock Paper Scissors
  - 2-dim random walk with graphics
- Chapter 6 project:
  - Word count in a file
  - Differences between two files
  - Indenting java code
  - Completing a story
- Chapter 7 project:
  - Hangman with file read/write
  - Tic tac toe
- Chapters 8–11 projects for students who are farther along:
  - Chapter 8: Rational Numbers
  - Chapter 9: Critters
  - Chapter 10: Family Database
  - Chapter 11: Edit distance (or other project)
- <http://projecteuler.net/>
  - Any project or projects of reasonable difficulty, after written permission by the teacher
- Scientific calculator GUI (graphics)
- Stop watch
- Game of life