

Programming Languages and Techniques (CIS120)

Lecture 31

April 4, 2012

Histogram demo

Announcements

- HW09: Spellchecking is due *next Wednesday* at 11:59:59pm.
- ...but HW 10 will be available early next week.
- Midterm 2 is available with Laura Fox in Levine 308
 - Check your scores online
 - Solutions available online

Midterm 2 stats

- Exam stats:

median 85

avg 83.25714286

min 33

max 99

stddev 11.49812085

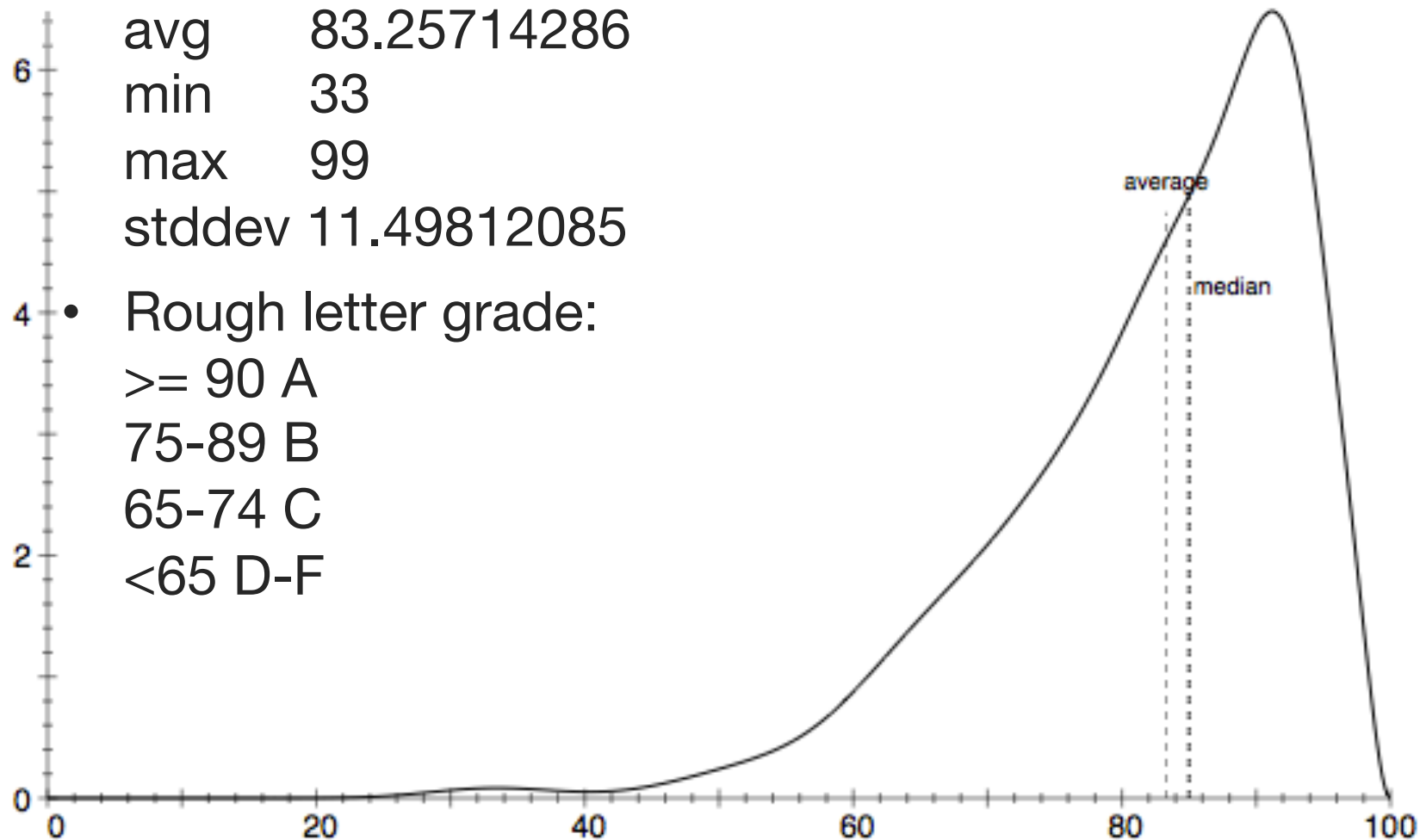
- Rough letter grade:

≥ 90 A

75-89 B

65-74 C

< 65 D-F



Design Example: Histogram.java

A design exercise using java.io and generic collections libraries.

Problem Statement

- Write a command-line program that, given a filename for a text file as input, calculates the frequencies (i.e. number of occurrences) of each distinct word of the file. The program should then print the frequency distribution to the console as a sequence of “word: freq” pairs (one per line).

Histogram result:

The : 1	each : 1	line : 2	should : 1
Write : 1	file : 2	number : 1	text : 1
a : 4	filename : 1	occurrences : 1	that : 1
as : 2	for : 1	of : 4	the : 4
calculates : 1	freq : 1	one : 1	then : 1
command : 1	frequencies : 1	pairs : 1	to : 1
console : 1	frequency : 1	per : 1	word : 2
distinct : 1	given : 1	print : 1	
distribution : 1	i : 1	program : 2	
e : 1	input : 1	sequence : 1	

Interactive Demo

Histogram.java and WordScanner.java