

PROGRAMMING AS A WAY OF LIFE

LECTURE 9

DECEMBER 3RD, 2013

SCRIBES

- ☐ LECTURE 5 SCRIBES PLEASE CONTACT ME
- ☐ VOLUNTEERS TO SCRIBE THIS LECTURE
DON'T WORRY ABOUT SLIDES
JUST TRANSCRIBE CHALKBOARD
- ☐ REMEMBER, YOU CAN GET PAID
- ☐ SCRIBING WILL HELP YOU REMEMBER MORE

LOGISTICS

- ☐ HOMEWORK 8 DUE FRIDAY 5PM IN GITHUB, TAG HW8 UNLESS PERSONAL PROJECT
- ☐ TUTORING OPPORTUNITIES:
 - ☐ TUESDAY 5-6PM WITH COLIN
 - ☐ WEDNESDAY 3-4PM WITH PAUL
 - ☐ FRIDAY 10AM - 3PM WITH KAHEA & ALEX
- ☐ BRING YOUR LAPTOP (IF YOU HAVE ONE) TO LAST LECTURE

PERSONAL PROJECTS

- ☐ IF YOUR PERSONAL PROJECT HAS BEEN APPROVED, YOU CAN SUBSTITUTE IT FOR HOMEWORKS 7-8
- ☐ E-MAIL ME AND COLIN WEEKLY STATUS UPDATES DUE BY FRIDAYS AT 5PM
- ☐ COMMIT A SHORT PROPOSAL.TXT INTO GITHUB REPO
- ☐ NO NEW PROJECTS APPROVED AFTER THANKSGIVING

CREDIT POLICY

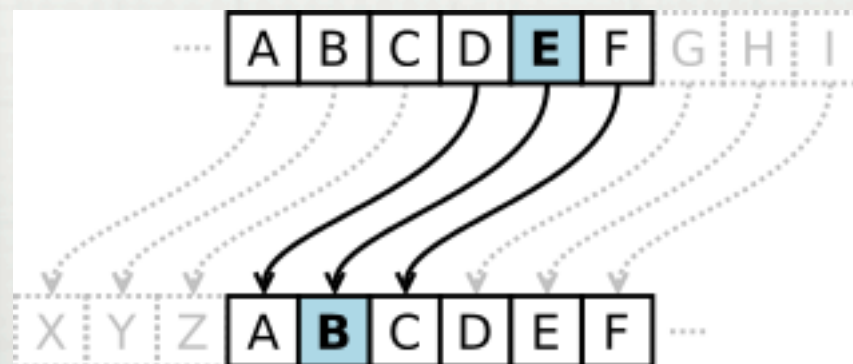
- ☐ TO RECEIVE CREDIT, YOU MUST HAVE:
- ☐ ATTENDED 90% OF LECTURES / LABS
OR E-MAILED ME IN ADVANCE.
- ☐ TURNED IN ALL THE HOMEWORKS
 - ☐ INCLUDING HOMEWORK 6
DONE IN GROUPS AND PAIRS OF GROUPS
- ☐ WRITTEN AND SUBMITTED SELF-EVALUATION
CHECK E-MAIL FOR INSTRUCTIONS

PYTHON PACKAGE MANAGEMENT

- ☐ ALL WAYS REQUIRE YOU TO BE ADMIN / ROOT
 - ☐ CANOPY PACKAGE MANAGER, ACADEMIC LICENSE
 - ☐ EASY_INSTALL
 - ☐ PIP
- ☐ VIRTUALENV

CAESAR CIPHER

- TRANSPOSES LETTERS IN THE ALPHABET
- WE WILL WRITE CODE THAT ENCRYPTS / DECRYPTS MESSAGES FROM A RANDOM CIPHER



CHAT WINDOW

- ☐ SERIOUSLY, YES, OPEN THE CHAT WINDOW
- ☐ [HTTP://WEBCHAT.FREENODE.NET/?CHANNELS=CSF&UIO=D4](http://webchat.freenode.net/?channels=CSF&UIO=D4)
- ☐ [HTTP://ADA.EVERGREEN.EDU/CSF/PYTHON13F/](http://ada.evergreen.edu/CSF/PYTHON13F/)



BITCOIN

- ☐ VIRTUAL , CRYPTO-CURRENCY
- ☐ INDEPENDENT OF THE DOLLAR
- ☐ NO INFLATION
- ☐ COMPLETELY ANONYMOUS , DECENTRALIZED
- ☐ FAST , CONVENIENT , ONLY REQUIRES AN INTERNET CONNECTION

ACADEMIC FAIR

WEDS 12/4, 4-6PM CRC

- ☐ TO LEARN ABOUT PROGRAMS AND MEET FACULTY FOR WINTER QUARTER
- ☐ DO YOU HAVE THE PREREQS?
- ☐ WHAT IS THE WORKLOAD LIKE?
- ☐ INDIVIDUAL CONTRACTS?
- ☐ [HTTP://WWW.EVERGREEN.EDU/ADVISING/ACADEMICFAIRS.HTM](http://www.evergreen.edu/advising/academicfairs.htm)



JAVA NEXT QUARTER

- LEARN JAVA SYNTAX FOR CONCEPTS YOU'VE ALREADY LEARNED IN PYTHON
 - IF-THEN-ELSE BRANCHES
 - WHILE AND FOR LOOPS
 - DATA STRUCTURES AND COLLECTIONS LIKE
 - LISTS, ARRAYS, HASHMAPS (DICTIONARIES)
 - CLASSES AND OBJECTS

```
public static void main(String[] args) {  
  
    int user = 17;  
  
    if (user <= 18) {  
        System.out.println("User is 18 or younger");  
    }  
    else {  
        System.out.println("User is older than 18");  
    }  
}
```


JAVA NEXT QUARTER

- ❑ SOFTWARE ENGINEERING, VERSUS PROGRAMMING
- ❑ DESIGN, ABSTRACTION, MODELING
- ❑ WRITING PROGRAMS IN A MEDIUM SCALE
 - ❑ INVOLVING 4-5 MODULES, OR FILES
- ❑ TESTING, UNIT TESTING, TEST-DRIVEN DEVELOPMENT

JAVA LEARNING RESOURCES

- ☐ FREE COURSE ON UDEMY
[HTTPS://WWW.UDEMY.COM/JAVA-TUTORIAL](https://www.udemy.com/java-tutorial)
- ☐ UW CSE 142
[HTTP://COURSES.CS.WASHINGTON.EDU/COURSES/CSE142/13AU/INDEX.SHTML](http://courses.cs.washington.edu/courses/cse142/13au/index.shtml)
- ☐ THINK JAVA TEXTBOOK ONLINE
[HTTP://WWW.GREENTEAPRESS.COM/THINKAPJAVA/THINKAPJAVA.PDF](http://www.greenteapress.com/thinkapjava/thinkapjava.pdf)
- ☐ HEAD FIRST JAVA TEXTBOOK



MY TEACHING STYLE

- ☐ PEER TEACHING / FEEDBACK
WORKING IN GROUPS
DESIGN CRITIQUES
- ☐ GENERATIVE ASSIGNMENTS
COMING UP WITH NEW QUESTIONS
LIKE HOMEWORK 6
- ☐ MORE CREATIVE WRITING
- ☐ MOVING TOWARDS:
MAKING MORE AND MORE CHOICES
EXPRESSING YOUR OWN VALUES AND STYLE

PYTHON VS. JAVA



- ☐ PYTHON
 - ☐ A GREAT BEGINNER LANGUAGE
 - ☐ MORE INTERACTIVE, BUT IN GENERAL SLOWER
 - ☐ SCRIPTING TO “GLUE” TOGETHER OTHER LANGUAGES
 - ☐ SYSTEM ADMINISTRATION
 - ☐ SCIENTIFIC COMPUTING / PLOTTING
 - ☐ BETTER PACKAGE MANAGEMENT / DISTRIBUTION

PYTHON VS. JAVA



☐ JAVA

- ☐ MORE BUSINESS-ORIENTED (“ENTERPRISE APPS”)
- ☐ RUNS ON WEB SERVER AND DATABASE BACKENDS
- ☐ STRONGLY-TYPED
- ☐ MORE STRUCTURED (PRIVATE / PROTECTED MEMBERS)
- ☐ CLOSER TO C/C++ FOR SYSTEMS PROGRAMMING
- ☐ ANDROID SMARTPHONES/TABLETS AND PROCESSING



WHY LEARN MULTIPLE LANGUAGES

- ☐ TO LEARN GENERAL CONCEPTS ACROSS LANGUAGES
(MASSIVELY MULTI-LANGUAGE COURSES?)
- ☐ TO LEARN WHICH LANGUAGE IS APPROPRIATE
FOR WHICH PURPOSE
- ☐ EASIER TO LEARN NEW LANGUAGES IN THE FUTURE
TECHNOLOGY CHANGES
LANGUAGES GO IN AND OUT OF FASHION
- ☐ BECAUSE IT'S FUN

HISTORY OF PROGRAMMING LANGUAGES
