

# INTRODUCTION TO JAVA

INSTRUCTED BY KEVIN LU

# AGENDA

CLASS DESCRIPTION

CLASS MATERIAL

ASSESSMENT OVERVIEW

COURSE OUTLINE

ABOUT THE TEACHER

CONTACT INFO

```
void countLettersViaGU  
eel();  
  
key = new Scanner(System  
  
em.out.println("Opening GU  
ner fileScanner = new Scan  
watch st = new Stopwatch();  
tart();  
yList<String> Letters = coun  
stop();  
em.out.println("time to count  
em.out.print("Enter number of  
numLettersToShow = Integer.parse  
wLetters(Letters, numLettersToSh  
eScanner.close();  
stem.out.print("Try another count?  
le(key.nextLine().toLowerCase().cha  
lose());  
  
eNotFoundException e) {  
out.println("Error reading the data  
  
tinct letters in a file using an a  
rrayList<String> countLettersWithA
```

## CLASS DESCRIPTION

Students will learn the fundamental concepts of computer science as well as extensive knowledge and practice using the programming language Java.

Students will indulge in concepts such as data types, variables, looping, methods, object-oriented programming, as well as extra knowledge such as machine learning.

This class is beginner friendly, meaning you don't need experience or knowledge in programming to take the course. The course is recommended for those in middle school or high school.

# CLASS MATERIAL

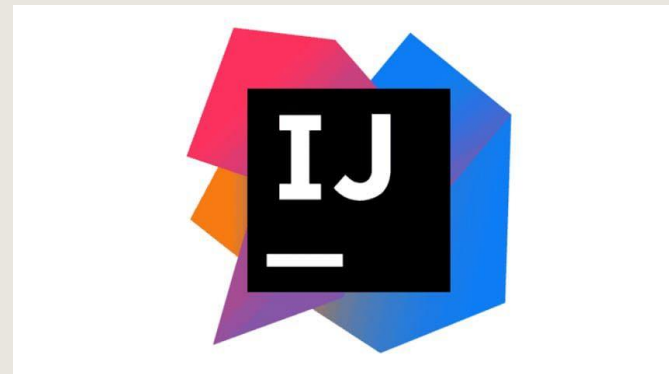
**A laptop device (Mac or Windows)**

\*Note: I will be using a Windows device during instruction



**IntelliJ Idea**

Free to use Java compiler, used for classwork and homework



# ASSESSMENT OVERVIEW

- Homework assignments every week to help encourage proficiency and practice
- Students should be prepared to complete their homework assignment for next class
- Multiple projects per year in which students will have class time to complete
  - Project #1
  - Project #2
  - Final Project

# COURSE OUTLINE

Week 1-2: Introduction to Computer Science

Week 3: Setting up IntelliJ Idea

Week 4: Printing and input

Week 5: Declaring variables

Week 6: Arithmetic and characters

Week 7: Strings

Week 8: If and else statements

Week 9: For loops

Week 10: While loops and errors

Week 11: Project #1

Week 12-13: Arrays

Week 14-15: Methods

Week 16-17: Project #2

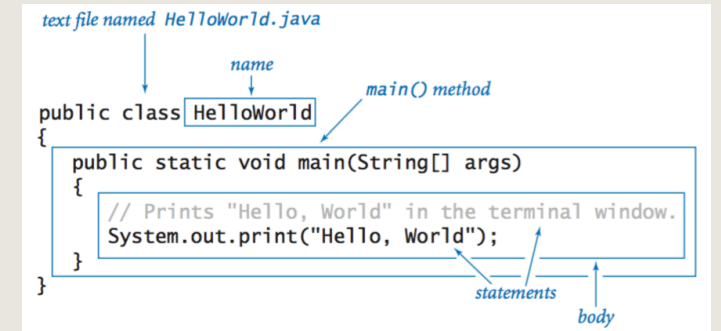
Week 18: Introduction to Object Oriented Programming

Week 19-20: Classes

Week 21: Debugging

Week 22: Introduction to Machine Learning

Week 23 - End of Year: Final Project



# ABOUT THE TEACHER

- **Fluent in three programming languages: Python, Java, and C++**
- **Taken college level computer science courses at Siena**
- **Self-taught machine learning**
- **Currently in USACO Silver**
- **Experience creating projects through programming**
  - Created multiple websites
  - Experience with data processing
  - Created a Discord bot



# THANK YOU

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Information given in the presentation  
is in the handout