Introduction to Java Programming

Goal:
The hope of this 10 week course is to give complete beginners a thorough understanding of how computer programming works through Java. Participants will learn topics such as strings, loops, and methods. We will learn how to solve computer programming problems and develop an algorithmic thought process. This course is designed to tackle some prominent Canadian Computing Contest problems and set participants up for success in the future.

Logistics:
Each class will be in the duration of 1hr and conducted on Zoom. Our instructors will usually present a powerpoint and give a 20-30min lecture. The remaining class time will be dedicated to analyzing solutions to problems or the instructor will do some live problem solving.

Resources:

Instructor Email:
java@codingpals.org

If there are any concerns or questions please feel free to reach out to our class email. We will try to answer all inquiries within 24 hours.

Youtube Channel Link:
https://www.youtube.com/channel/UCH_Et0lkXox8SucNOhuq8cw/videos

We highly recommend participants in this class to subscribe to our youtube channel and review all the problems. Coding Pals instructors have provided in depth tutorials and fun projects to look at.

Class Outline/Schedule

Class 1: Introduction to Programming
- Understand thought process of programming
- Learn Pseudocode
- Practice using pseudocode to complete problems

Class 2: Syntax
- Learn input/output operations
- Simple arithmetic operations
- "Hello World"
- Learn to convert pseudocode to Java

Class 3: If Statements
- Learn if/else if/else statements
- Implementation problems

Class 4: For Loops/While Loops
- Learn the functionality of for loops and while loops
- Applying for loops and while loops to solving string and list problems

Class 5: Strings
- Learn string syntax and basics

Class 6: Nested Loop & Array/Arraylists
- Learn Nested For Loop usage
- Learn Array/Arraylist syntax and basics

Class 7: Methods
- Learn how to use methods
- Implementation problems

Class 8: Review
- Syntax, If Statements, Loops

Class 9: Final Review
- Strings, Arrays, Arraylists, Methods

Class 10: Practice Contest/ Farewell
- 1hr Hackerrank Live Contest