

JAVA FOUNDATION

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WHAT IS PROGRAMMING

- Program
- Programming Language
 - Low level
 - High level
- Programming Approach
 - Procedural
 - OOP

CHARACTERISTICS OF OOP

- Encapsulation
- Inheritance
- Polymorphism
- Abstraction

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- Classes
- Objects
- Methods

JAVA...

History of Java

Characteristics of Java

- Simpler than Cpp
- OOP
- Compiled and Interpreted
- Case Sensitive
- ROBUST
- Platform Independent – Architecturally neutral
- Portable
- **Secure**
- **Multithreaded**

JAVA PROGRAMS

- Standalone Programs
- Applets

DETAILS OF THE LANGUAGE...

Java Keywords

Identifiers

Literals

variables

Comments

Operators

Data type

VARIABLES AND DATA TYPES

Add ... H/W

CONTROL STRUCTURES

If ... Else ... Elseif

Nested if

Switch

LOOPS

For loop

While

Do.. while

PROGRAMMING APPROACH

- Algorithm
- Flowchart
- Implementation

PRACTICE PROGRAMS IN CLASS

Session 1 -

- 1) Hello World
- 2) Printing sentences
- 3) Printing Arithmetic sums
- 4) If Else condition

Session 2 -

- 1) Switch
- 2) Nested If
- 3) For loop

HOMEWORK

- 1) Take input from the user and print the sentences
 - a) Use `import java.util.Scanner`

- 2) Take 2 integers from the user input and
 - a) Print the sum
 - b) Print the difference
 - c) Print the product
 - d) Print the quotient if DENOMINATOR is not zero