Computer basics – terms and concepts you need to know

Hardware

- Processor
- Main memory
  - Bit
  - Byte
  - Address
- Secondary memory
  - File
  - Directory

Software

- Applications
- System
- Program
  - Algorithm
  - Instructions
  - Data
  - Code
    - Source
    - Executable

Programming Languages

- High level vs. low level
- Semantic gap
- Translation
  - Compiler
  - Interpreter
- Syntax
- Data types

Java & Object-oriented programming

- Class
- Object
- Method
  - Definition
  - Call
First example program:

```java
import java.util.*;

public class Fall09ex1 {
    static final double DAYS = 365.25;
    public static void main(String[] args) {
        Scanner kb = new Scanner(System.in);
        int age;
        System.out.print("How old are you? ");
        age = kb.nextInt();
        age = (int)(age * DAYS);
        System.out.println("You are "+age+" days old");
    }
}
```

Statement types:
- Declaration
- Assignment
- Input
- Output
- Comment

Expressions
- Arithmetic
- String
- Method call
  - Calling object
  - Arguments

Program structure
- Class & method
  - Heading
  - Body
- Code block
- Statement
  - Syntax
  - Order

Errors
- Syntax
- Logic
- Semantic