# Class Notes

## Logistics

* 10-6 EDT
* 1-2 pm lunch
* 15 min break
* No new material after 5pm
* Class repository https://github.com/ExgnosisClasses/JavaMarch13
* Virtual machines
  + If you use your own machines – we cannot deal config in class

## Introductions

1. The name prefer to be called
2. What area of expertise – programmer, tester
3. Your experience with Java and other programmer
4. Any specific expectation for what you want to learn

### Rod Davison

1. IT technology since 1972
2. Theoretical mathematics cognitive science
3. Artificial intelligence – 1980s
4. Consulting 1990s
5. Objective
   1. Demystify Java – tool knowledge
   2. The optimal use Java
   3. Create a seminar like environment

## Programming Style

Imperative programming

* you describe how to do something

declarative programming

* you specify a result to be obtained
* the programming environment writes the imperative

## Programming Paradigm

Set of ideas about how we should write code, what the basic units of app should, what good design is

* Procedural paradigm (structured) – imperative
  + AlGOL, FORTRAN, C, COBOL
  + Automating algorithms
* OO Paradigm
  + Extended the structured
  + Different way of organizing code
  + Multiple CPUs and network
  + Developed in the 1960s
  + Implicitly uses declarative style
* Functional Paradigm
  + Around since the 1960s
  + Haskell, Erlang
  + Dealing with big data
  + Java starts to add more functional programming
  + Tend to use declarative

## Java Language

* 1995 - Internet client language
  + Safety
  + Small executable
  + underpowered environment
  + Solution with a poorly defined problem
* JCP java Community process
  + Consortium of users and developers
  + What should java be?
  + J2EE – EE
  + java 8 – functional programming, collections
* Modules – Java 9

### Career moves

1. There exists a large body of legacy Java
2. Containerization (microservices)
   1. - bare metal
   2. - VMS
   3. - Cloud
   4. - Containers

## Java Code Organization

Main() - bootstrap for your application

a separate class just the main() method – I tend to call it “Runner”

entityproject.javadev.ibm.com

com.ibm.javadec.entitiyproject.xxxxx

waterworks.akron.ohio.usa

### Tutorials

https://www.w3schools.com/java/default.asp

https://www.baeldung.com/