

Java + Android

Application Programming with Java

Ranken Technical College

January 6, 2020

Agenda

- Course Outline
- Policies & Procedures
- Perusall
- A brief history of Java & Android
- Hello World!
- Setting Up Your Development Environment

Course Outline

- **00 Introduction to Java** (2 weeks)
 - Java Quick Syntax Reference (on Perusall)
 - Java API Docs
 - codecademy: Learn Java
 - codewars: Interview Questions
- **01 Android UNIT 1 – Making your first Android App** (2 weeks)
- **02 Android UNIT 2 – Building GUIs in Android** (2 weeks)
- **03 Android UNIT 3 – Working in the background** (2 weeks)
- **04 Android UNIT 4 – Saving User Data** (2 weeks)
- **05 Using Volley with Web APIs** (1 week)
- **06 Making apps with multiple screens** (1 week)
- **07 Firebase** (1 week)
- **08 Final Project** (2 weeks)

Syllabus

See **Main Page** of course, under **Handouts** section.

https://docs.google.com/document/d/14v32MXOZTo8rNkeSEeM-rxqr3gBc9O_YXy0qyPFnubk/edit?usp=sharing

Work Ethic

Work Ethic will be assessed every **20** days.
Find the grade sheet on the **Main Page** of course, under **Handouts** section.

https://drive.google.com/open?id=1umGe_eH49gFB_h0ebqQQABdFyxs4waJm4

Appearance Standards

See **2019-2020 Student Handbook**

Pages **23-24**

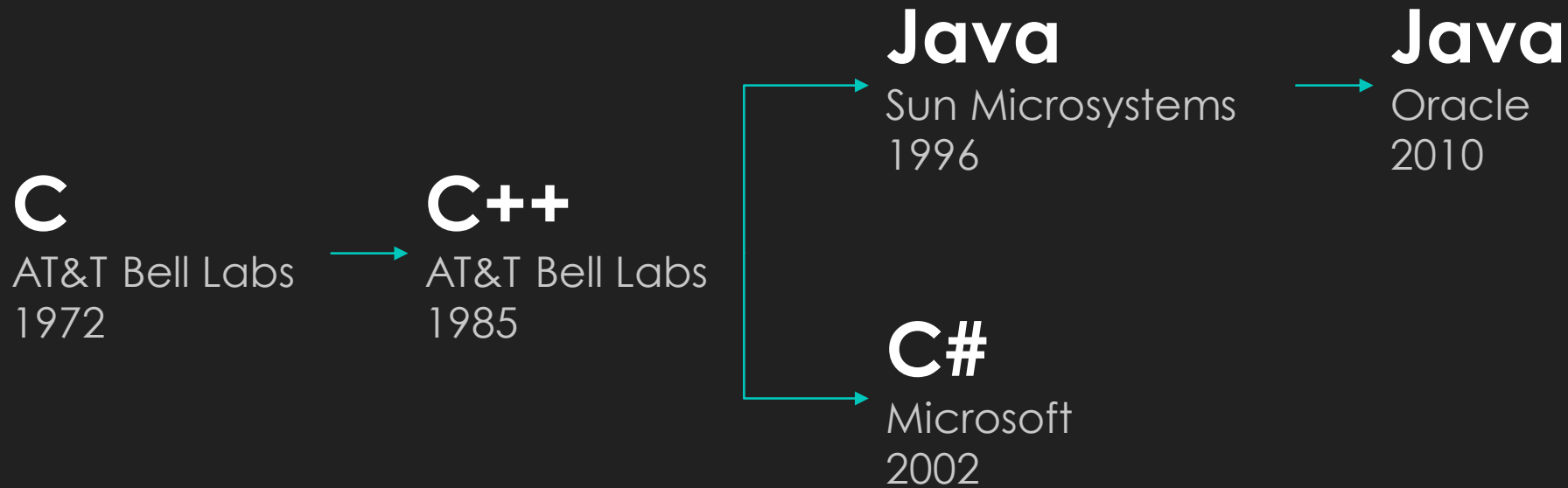
<https://insideranken.org/ICS/>

The Perusall logo is a teal-colored speech bubble with a diagonal line pattern. The word "Perusall" is written in white, bold, sans-serif font inside the bubble.

Perusall

Your textbooks and reading materials will be on Perusall this semester.

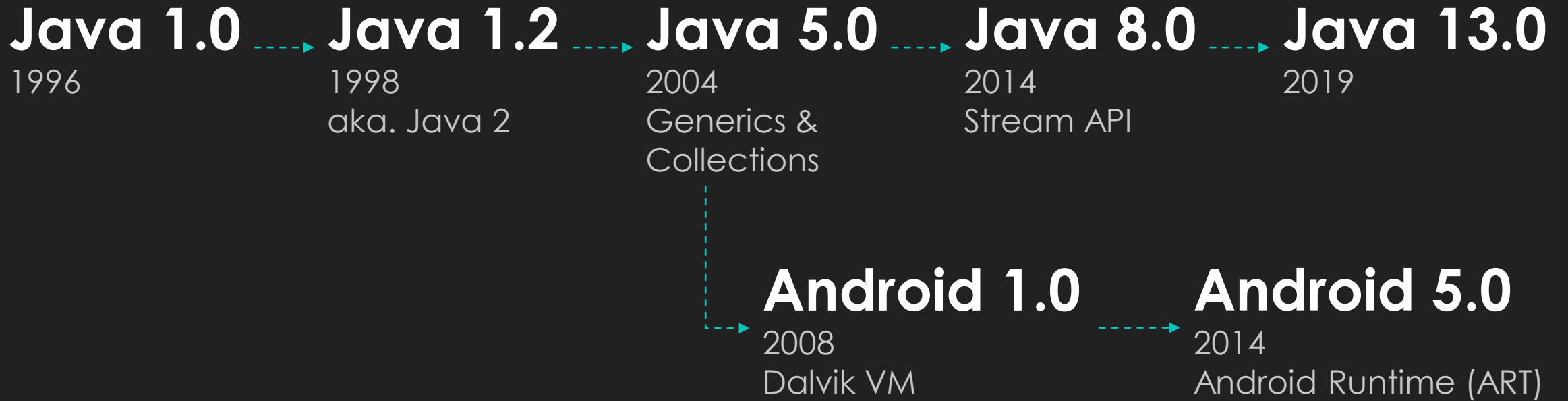
Join the course at <https://perusall.com/>
with course code **SMITH-HY3H8**



Origins of the C language family

1972 - Present

[https://en.wikipedia.org/wiki/C_\(programming_language\)](https://en.wikipedia.org/wiki/C_(programming_language))



Evolution of Java

1996 - Present

https://en.wikipedia.org/wiki/java_version_history

Android Version History

2008 - Present

https://en.wikipedia.org/wiki/android_version_history

Code name	Version numbers	Initial release date	API level
No codename	1.0	September 23, 2008	1
	1.1	February 9, 2009	2
Cupcake	1.5	April 27, 2009	3
Donut	1.6	September 15, 2009	4
Eclair	2.0 – 2.1	October 26, 2009	5 – 7
Froyo	2.2 – 2.2.3	May 20, 2010	8
Gingerbread	2.3 – 2.3.7	December 6, 2010	9 – 10
Honeycomb	3.0 – 3.2.6	February 22, 2011	11 – 13
Ice Cream Sandwich	4.0 – 4.0.4	October 18, 2011	14 – 15
Jelly Bean	4.1 – 4.3.1	July 9, 2012	16 – 18
KitKat	4.4 – 4.4.4	October 31, 2013	19 – 20
Lollipop	5.0 – 5.1.1	November 12, 2014	21 – 22
Marshmallow	6.0 – 6.0.1	October 5, 2015	23
Nougat	7.0	August 22, 2016	24
	7.1.0 – 7.1.2	October 4, 2016	25
Oreo	8.0	August 21, 2017	26
	8.1	December 5, 2017	27
Pie	9.0	August 6, 2018	28
Android 10	10.0	September 3, 2019	29

Hello World!

```
public class HelloWorld {  
    public static void main(String[] args) {  
        System.out.println("Hello World!");  
    }  
}
```

Hello World!

```
> javac HelloWorld.java
```

```
> java HelloWorld
```

```
Hello World!
```

API Documentation

Java API Docs

<https://docs.oracle.com/en/java/javase/13/docs/api/index.html>

Android API Docs

<https://developer.android.com/reference/packages>

Commonly Used Java Classes

There are a lot of classes in Java, we will only be using a small fraction of those classes.

<https://drive.google.com/open?id=1rcT9R8pZDSML8a3OOTV2CsnljYy1yp5dieiXMjjGvwM>

GitHub Classroom

Create your GitHub repo for this semester using the following invite link:

<https://classroom.github.com/a/oOrul8Pa>

Setting Up Your Development Environment

There are several pieces of software to install and configure this semester.

See instructions under **Coursework**.

https://drive.google.com/open?id=1e0_pyU6WKcGEEUIWY2Pr0AfrMkYTzkgRsXipu9jbZJE