



Lecture 1: Introductions

Instructors

- Mustafa Naseem
 - Masters in ICTD from University of Colorado
 - Hobbies: teaching, traveling, story telling!
 - Worked for 1 ½ years at a Venture Fund
- Mahlet Woldeyes
 - Bachelors in Chemical Engineering from MIT
 - Hobbies: traveling, learning, excercising

Today' s agenda

- Program Goals + Opportunities
- Student Introductions
- Programming Methodology + Course Overview
- Registration: (AITI webpage + Piazza)
- Homework Assignment: Getting Set Up
- Skills Assessment Test

Program Goals + Opportunities

- Teaching Style:
 - Tinker (Arduino style)
 - Teach Yourself (DIY)
 - Collaborate
 - Drinking from the Fire hose
 - Learning will be mutual
- Mobile is big!
 - Increasing proliferation
 - The world is moving towards mobile
- Opportunities are immense

Today's agenda

- Program Goals + Opportunities
- Student Introductions
- Programming Methodology + Course Overview
- Registration: (AITI webpage + Piazza)
- Homework Assignment: Getting Set Up
- Skills Assessment Test

Today's agenda

- Program Goals
- Student Introductions
- Programming Methodology + Course Overview
- Registration: AITI webpage + Piazza
- Homework Assignment: Getting Set Up
- Skills Assessment Test

Programming Methodology

1. Specify and analyze the problem
 - Remove ambiguity
 - Decide on inputs/outputs and algorithms
2. Design the program solution
 - Organize problem into smaller pieces
 - Identify existing code to reuse!
3. Implementation (programming)
4. Test and verify implementation
5. Maintain and update program



Course Overview

- Week 1 (June 24-29)
 - Android + Eclipse IDE overview
- Week 2 (July 1-5)
 - Python + Django Overview
- Week 3 (July 8-12)
 - Specific focus areas (Location Data + GPS; App security; Multithreading; databases etc)
- Week 4 (July 15-19) → school starts?
 - Prototype refinement + Office hours/guest lectures
- Week 5 (July 22-27)
 - Testing + Debugging (Making sure demo is perfect!)

Today's agenda

- Program Goals + Opportunities
- Student Introductions
- Programming Methodology + Course Overview
- Registration: (AITI webpage + Piazza)
- Homework Assignment (installing Android ADT + Django on your own machines)
- Skills Assessment Test

Registration

- AITI Website has a dedicated South Africa Program Page: <http://aiti.mit.edu/program/south-africa-summer-2013/>
- Piazza is an online collaboration tool for students + instructors
 - We've set up an AITI Piazza for Intercontinental collaboration!!
 - And we'll set up a dedicated Piazza for South Africa too!
- Once class list is finalized, we'll send an email with instructions on creating a profile on the website & Piazza

Today' s agenda

- Program Goals
- Student Introductions
- Programming Methodology + Course Overview
- Registration: (AITI webpage + Piazza)
- Homework Assignment: Getting Set Up
- Skills Assessment Test

Getting Set up

- Download JRE + JDK:
 - <http://www.oracle.com/technetwork/java/javase/downloads/index.html>
- Download Android ADT Bundle:
 - <http://developer.android.com/sdk/index.html>
- Install JRE+JDK+Android ADT Bundle:
 - http://www.youtube.com/watch?v=_RNNgo79d2s
- Download Python (stick to 2.x.x series e.g. 2.7.5):
 - <http://www.python.org/download/releases/2.7.5/> (download windows x86 MSI Installer)
- Install Python:
 - <http://www.youtube.com/watch?v=L5t5U0XnSew>
- Download Django:
 - <https://www.djangoproject.com/download/>
- Install Django:
 - <http://www.youtube.com/watch?v=rIVwVOpwpsA>

Today' s agenda

- Program Goals + Opportunities
- Student Introductions
- Programming Methodology + Course Overview
- Registration: (AITI webpage + Piazza)
- Homework Assignment: Getting Set Up
- Skills Assessment Test

Skills Assessment Test

- Go to: <http://aiti.mit.edu/materials/south-africa-summer-2013/> and download Lab 1 & Lab 1 Files
- You have 1 hour. Timing is not a constraint - **Honesty is!**
- I want to know your skill set, so that I can design the curriculum accordingly.
 - This test is not graded!
 - The outcome of this test will not have any affect on your selection as part of AITI.
 - Remember to take the survey at the end of the test