CSC 111
Introduction to Computer Science

Dominique Thiebaut
Spring 2015

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Today:

- Class **Web Page**: [http://tinyurl.com/1112015](http://tinyurl.com/1112015)
  
  - Syllabus
  
  - Piazza
  
  - Moodle
  
  - Python & Idle
  
  - Waiver forms & Registration
Syllabus

• http://tinyurl.com/1112015

• http://cs.smith.edu

• faculty

• D. Thiebaut

• more info
Please answer the Survey!
CSC111: Amount of Work

Level of Difficulty vs. Semester
CSC111: Amount of Work

Level of Difficulty vs. Semester

Your level
This week…

Level of Difficulty

Your level

Semester
Goals for this Week

• Learn how to use **Idle**

• Write simple programs that use **variables**, **for loops**, and **output** information

• **Install** Python and Idle on laptop (optional)

• Learn how to **submit** Python programs to **Moodle** (lab+homework)

• Do **Lab #1** and start on **Homework #1**
Rule for Laptop Use in Class

- Laptops *welcome* for note-taking, accessing class Web page, and for running Python programs

- All other use is *forbidden*
Reading

- Read **Chapter 1** in John Zelle's *Python Programming*, up to Section 1.7 included
What is a Programming language?
Important Concepts…

• **Syntax and keywords**
  
  and del from not while as elif global or with assert else if pass yield break except import print class exec in raise continue finally is return def for lambda try

• **Algorithm**

• Python is an **interpreted** language
Interpreted vs. Compiled

vs. YouTube
An Example Program
# A simple program taken from Zelle, Chapter 1
# D. Thiebaut

def main():
    print( "This program illustrates a chaotic function" )
    x = eval( input( "Enter a number between 0 and 1: " ) )
    for i in [ 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 ]:
        x = 3.9 * x * ( 1 - x )
        print( x )

main()
A simple program taken from Zelle, Chapter 1

```
# A simple program taken from Zelle, Chapter 1
# D. Thiebaut

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    print( "This program illustrates a chaotic function" )
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main()
```

**Comment**

**Different colors:** Syntax highlighting

**Indentation is important**

**Special tool:** Editor IDE
Integrated Development Environment = IDLE
Integrated Development Environment = IDLE
Integrated Development Environment = IDLE (MAC)
Integrated Development Environment = IDLE (Windows)
DEMO TIME!

```python
# A simple program taken from Zelle, Chapter 1
# D. Thiebaut

def main():
    print( "This program illustrates a chaotic function" )
    x = eval( input( "Enter a number between 0 and 1: " ) )
    for i in [ 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 ]:
        x = 3.9 * x * ( 1 - x )
    print( x )

main()
```
Concepts to Cover in Demo

• Console vs. Edit window

• Variables
  • numbers: integers and floats
  • text: strings of characters

• print function
Demo Programs To Play With…

```python
age = 20
year = 2015
yearBorn = year - age

print( "you are", age )
print( "you were born in", yearBorn )

name = "Alex"
college = "Smith College"
print( name, "goes to", college )

for name in [ "Lea Jones", "Julie Fleur", "Anu Vias" ]:
    print( name )
    print( "————" )
```
Registering Wait-Listed Students

• If you are already registered, you can leave!

• Priority rule for wait-listed:
  • Max number per lab section: 25 students
  • 1) EGR majors (CSC111 required)
  • 2) Follow natural order in wait-list