

Objectives

- Lab Directions
- More designing classes

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1

One Lab Implementation Strategy

- Use "test.log" file
- Process the file
 - Using WebClientInfo to get hostname/TLD
 - Print TLDs to verify
 - Make DomainRequests class
 - Fill in methods, **test** (see testWC() function in requester.py)
 - Update tld->DomainRequests mappings
- Print out DomainRequests from mappings appropriately
 - Then sort the DomainRequests and print
 - Then print to a file

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2

One Lab Implementation Strategy

- Then, optimize to not lookup IP address if don't need to (mapping of IPs to Hostnames)
- Then, test on larger .log file
- Then, implement command-line arguments
- Then, handle gnuplots

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3

Lab 9 Implementation Reminder

- Handle when the tld is None (ignore those cases)

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4

Implementing __cmp__

- Get error when do
 - if dict.get(key) == None:
- Because None is not of type DomainRequests
 - The fix:
 - if not dict[key] is None:

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5

Design Classes for a Banking Application

- What should we model?
 - What are the classes?
 - What data/functionality do the classes implement?

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6

Design Classes for a Banking Application

- Account
- Customer
- Account Manager

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7

Account

- Data:
 - Account number
 - Customer ID
 - PIN
 - Balance
 - Type (checking or savings)
- Functionality
 - "get"ters
 - Withdrawal
 - Deposit

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bank.py

8

Customer

- Data
 - Customer id
 - Map of account numbers to accounts
- Functionality
 - Getters
 - Add account
 - Delete account

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9

What do you think of this API?

AccountManager method	What it does
AccountManager()	Creates a new AccountManager object
add(account)	Adds a new Account object to be managed
get(pin)	Returns the Account associated with the pin; returns None otherwise
remove(pin)	Removes the Account with the given pin from being managed

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10

Account Manager

- Data
 - Mapping of customer id to customer
- Functionality
 - Getters
 - Delete a customer
 - Add a new customer
 - Compute interest on all accounts

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11

ATM: Driver Program/Class

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12

ATM: Driver Program

- Data:
 - Account Manager
- Functionality
 - Login
 - Logout
 - Withdraw
 - Deposit

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13

Designing Bank Classes Summary

- “nouns” are our classes/objects
- “verbs” are the methods called on the classes/objects

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14

Broader Issue

- Facebook's News Feed

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15