

# BC-isit442 Class Overview And Structure

Document #PLPC-120048

Version 0.1

January 05, 2016

This Document is Available on-line at:

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## Part I

# Message Platform Preparations

## 1 Messaging Software BinsPreps Verification

### Installation

- Functionally Grouped Components For Message Transfer Software Preparations Verify – Install – Verify
- Functionally Grouped Components For Mail Access Software Preparations Verify – Install – Verify

## 2 Messaging Services Configuration

- Functionally Grouped Components For Message Transfer Services Configuration Verify – Install – Verify
- Functionally Grouped Components For Mail Access Services Configuration Verify – Install – Verify

## 3 Overview Of Mailfront Replacement

### Overview Of Mailfront Replacement

- Qmail Processes Are Deleted – Taken Out
- Mailfront Processes Replace Them
- CVM Is Added For Authentication

## 4 Messaging Services Verification

- `ps -ef | grep -i mail` – also with `pgrep`
- Look at The Ports
- Locate The Full Command Line That Goes With That Port / Process  
/proc/xx/cmdline

## Part II

# SMTP and IMAP/POP Dialogues

## 5 SMTP Dialogue Examples

Message Transfer Blee Panel – Walkthrough

- IIM BinsPreps
- Send And Receive
- Send
- Receive
- Monitor
- Test and Diagnose

## 6 IMAP Dialogue Examples

Message Transfer Blee Panel – Walkthrough

- IIM BinsPreps
- Send And Receive
- Send
- Receive
- Monitor
- Test and Diagnose

## 7 Pop Dialogue Examples

Message Transfer Blee Panel – Walkthrough

- IIM BinsPreps
- Send And Receive
- Send

- Receive
- Monitor
- Test and Diagnose

## Part III

# Class Activities

## 8 Blee And Emacs Proficiency

### 8.1 Using Emacs As An IDE

- Programming Language Modes – (Bash, Python, Lisp, C/C++, Html, CSS, JavaScript – TeX, Beamer)
- YASnippet <http://www.emacswiki.org/emacs-test/Yasnippet>  
Useful Video: <http://www.youtube.com/watch?v=ZCGmZK4V7Sg>
- Dynamic Evaluation
- Linting and Style Enforcement
- Debugging

### 8.2 YASnippet

- Using Snippets
- Creating Your Own Snippet

## 9 Bash Scripting – Mail Injector Exercise

### 9.1 MailInjector Development

- Requirements / Functional Specification – (Mohsen)
- Design – (Students)
- Design Review – (Joint)
- Coding / Implementation – Very Evolutionary And Layered (Students)
- Verification – (Joint)
- Iteration – (Joint)

Keeping It All Together – Inside Of Your Script

## 9.2 MailInjector Initial Structure

- cd /isit442
- mkdir mailInjector
- cd mailInjector
- cp /opt/public/osmt/bin/mailInjector.data mailInjector.data
- cp your script.sh from .. to mailInjector.sh
- cp Your Panel.sh from .. to Panel.sh
- Run Your Old Panel.sh here
- Develop mailInjector.sh and Panel.org – Start With Parsing Input

## 9.3 MailInjector Functional Specification

- Read In A File Structured As: /opt/public/osmt/bin/mailInjector.data
- 4 Comma Sepated Fields. Example: mohsen.banan@bellevuecollege.edu,nn,Mohsen,Banan
- Create A Message (Header and Body) Based On Fields (2,3,4)
- Send That Message To content of Field 1
- Produce A Report/Log Of All successful and failed injection/sends

## 9.4 MailInjector Design Specification Topics – Your Assignment

- How will you read the input file? stdin? parameter? argument?
- How will you parse the file?
- How will you create the message?
- How will you submit the message? (manual-entry “qmail-inject”)
- How will you specify the From: line?
- How will you specify the Envelope Address?
- How Will you determine the message injection was successful?
- How Will you determine the message was not delivered?
- How will you produce a report?

## Part IV

# Assignments

## 10 Review Of Last Week’s Assignments

- RFCs List Assignment

- Readings

## 11 Next Set Of Assignments

- Design Your MailInjector.sh Based On The Functional Spec  
Do It However You Wish. Pseudo Code, High Level Bash, Flow Chart, English Description.  
Include Error Handling and Data Analysis – How Should Input Be Delivered To It?  
Consider Making It Parallel Vs Serial/Linear.  
Consider Scaling
- Messaging Protocol Dialogues Preparations  
Study The Simplest Complete Example For Sending An SMTP (encrypted and clear) Message. (Marcus+Marcus)  
Study The Simplest Complete Example For Retrieving An IMAP (encrypted and clear) Message. (Jon+Delux)  
Study The Simplest Complete Example For Retrieving A POP clear Message. (Hootan+Yuri)

## References