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# *CSCE 240:* Advanced Programming Techniques

## Lecture 27: Reuse Discussion

## Lecture 28: Project Presentations

PROF. BIPLAV SRIVASTAVA, AI INSTITUTE

16TH AND 18TH AND APRIL 2024

***Carolinian Creed: "I will practice personal and academic integrity."***

**Credits**: Some material reused with permission of Dr. Jeremy Lewis. Others used as cited with thanks.

# Organization of Lectures 27 and 28

- Introduction Section
  - Recap of Lecture 26 – Quiz 2
- Main Section
  - Class 27: Reuse Discussion for PA6
  - Class 28: Project Presentation
- Concluding Section
  - About next lecture – Lecture 29 – Concluding Lecture
  - Ask me anything

# Introduction Section

# Main Section

# PA6

**Things to test**

[#1] Graceful exit

"Quit" or "quit" or just "q" => Program exits

[#2] Debug

"Tell me everything" => Give all information for all companies

[#3] About scope

"What companies do you support for Q/A" => Give list of companies supported

"What info do you have" => Tell items and parts for each company supported

[#4] About each supported part and item

"Tell me about the CEO of IBM" => Give info

"Tell me about the the risk factors" => Give info for supported companies

[#5] About chatbot usage

"Give me your usage stats" => Give chat summary info

[#6] Handling others

*<User can enter any other text and the program has to handle it>* =>

"I do not know this information" or

"Here is my guess - " + <query> + <answer>. "Did I answer correctly ? "

**Responsibilities for final chatbot**

- R1: Obtain content (PA1)
- R2: Data integration and optimization (PA2)
- R3: Handle user interaction (PA3, PA4)
- R4: Show results and statistics (P5)
- R5: Integrate – build final system
- R6: Test – evaluate system and drive improvements by R1-R5.

**Reference**

- Prog 1: extract data from the disease **[prog1-extractor]**
- Prog 2: process it (extracted data) based on questions **[prog2processor]**
- Prog 3: make content available in a command-line interface **[prog3-ui]**
- Prog 4: handle any user query **[prog4-userintent2querymapper]**
- Prog 5: report statistics on interaction of a session, across sessions **[prog5-sessionlogger]**

Project Presenter Name:
Student Name:

Scope: Companies, Prog. Language

Data: What data is available and what is retrieved from program ?

Code Organization: Anything significant to highlight ?

PA1:

PA2:

...

PA6: code reuse by someone, and of someone

Queries Snapshot

Video link:

Experience implementing the chatbot, Testing

Experience with reuse

# Course Project Report – Due Last Class

- Introduction
  - Problem // getting financial information
  - Related work
- Solution
  - Scope
  - Design
  - Components // Separate section for P1-P5
  - Selection of best component and Integration process
- Evaluation of the solution
- Discussion
  - Significance
  - Experience building the solution and collaboration
  - Future Work
- Conclusion

# About Last Lecture – Lecture 29

# Lecture 29: Last Lecture

- Summary of key concepts
- Coping with future trends (including AI)

| | | | |
|---|---|---|---|
| 19 | Mar 19 (Tu) | Advanced: Pointers, I/O | |
| 20 | Mar 21 (Th) | Advanced: Operator overloading | Prog 4 – end |
| 21 | Mar 26 (Tu) | Advanced: Memory Management | Prog 5 – start<br>HW 5 due |
| 22 | Mar 28 (Th) | Advanced: Code efficiency | |
| 23 | Apr 2 (Tu) | Advanced: Templates | |
| 24 | Apr 4 (Th) | AI / ML and Programming | Prog 5 – end |
| 25 | Apr 9 (Tu) | Project code summary – student presentation for reuse<br>Review material for Quiz 2 | HW 6 due<br>Prog 6 – assembling start |
| 26 | Apr 11 (Th) | In class test | Quiz 2 – In class |
| 27 | Apr 16 (Tu) | Project presentation | Prog 6 - due |
| 28 | Apr 18 (Th) | Project presentation | Last day of class (April 22 per bulletin) |
| | Apr 23 (Tu) | | Reading Day |
| 29 | Apr 25 (Tu) | 9am – Final Overview | Examination |