CNAP: IUP Expansion of CAE-C Education Project

Meeting's Agenda on October 11, 2017

Action:

1. Approval of the minutes of the last meeting held Sept 27.

Announcements:

1. Status of Zhengqi Hu's GA and Lydia Taylor.

2. Cybersecurity Club meeting are ongoing. The Club will meet today at 5 Pm in the Cybersecurity Lab (107A Stright Hall). Please see the flyer for this meeting and announce to interested students.

3. Ben has promptly selected tutors to cover for Jacob until his employment requirements were completed.

4. Cybersecurity knowledge and skills tutoring sessions are ongoing. Krista prepared a modified flyer that also include the option of going to the Writing Center. Please see the tutoring flyer and spread the word to interested students.

5. The Web Portal was launched at www.iup.edu/compsci/events/cae-c-expansion. Please check its contents, suggest modifications/updates, and send me any additional info you want to be posted there.

6. Please announce and spread the word reading the upcoming IUP Cybersecurity Day on Oct 26 at Stouffer Auditorium.

Project Components Status Reports:

1. Research Component: Dr. Machado

2. Tutoring/Writing Center: Dr. Rafoth

3. Weekend Workshops & Cybersecurity local consortium: Dr. Fiddner

4. Web Portal, Summer Camp, and Weekend Workshops: Dr. Farag (Tutoring use issue)

New Business:

Next meeting will be held in 123 HSS on Oct 25 starting at 11:00 AM.

Minutes for the CNAP Committee Meeting
September 27, 2017 at 11:00 AM in 306 HSS

Attended By: Drs. Waleed Farag, Dighton (Mac) Fiddner, Crystal Machado, Ben Rafoth, Krista Sarraf, Alex Ashcom, and Jacob Pimental

1. Two Graduate Assistants were hired, Krista Sarraf and Zhengqui Hu

2. Discussed the Cybersecurity Club election and presented the flyer.

3. Discussed having a pre-test for students who come into tutoring.

4. Discussed Cybersecurity Day, which we have three speakers lined up for

5. End of Oct. interviews will begin

6. Agreed on a tentative date, Dec 2, 2017, for the fall workshop.

7. A plan was discussed in order to document tutoring session attendance.

8. WebX and Jotform are some of the online tools that will be used to support offering the tutoring service.

9. WF will contact computer science faculty asking for assignments that contain writing components in Cybersecurity courses.

10. DF will send a PowerPoint summarizing various components of this project and outlining the activities to initiate the proposed Cybersecurity local community/consortium.

11. DF will attend the Three Rivers Information Security Symposium to be held on Oct 20 in Monroeville.

Submitted by: Jacob Pimental

IUP CRIMSON HAWKS
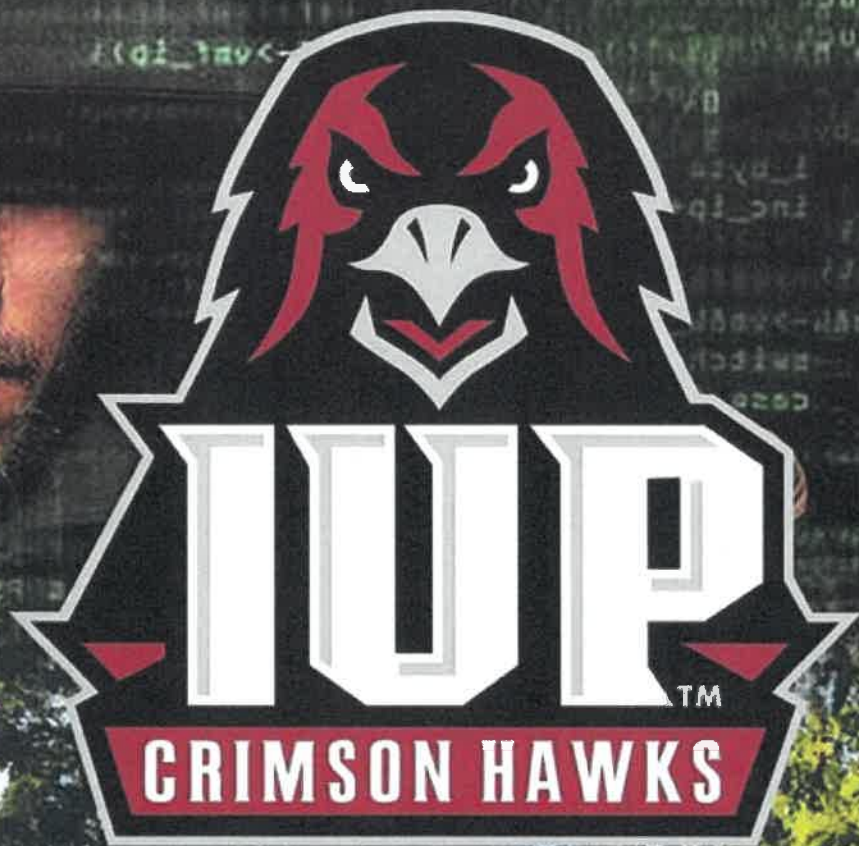
Cyber Security Club

Topic: Social Engineering

When: Wednesday 10/11/17 @ 5 PM

Where: Stright Hall 107a (Cyber Security Lab)

Who: Computer Science Majors & anyone who is into cyber security and hacking.

ATTENTION: STUDENTS TAKING CYBERSECURITY-RELATED COURSES
WRITING TUTORING

Now available with an emphasis on cybersecurity

DO YOU NEED HELP:

- ☐ **Improving your soft skills?**
- ☐ **Citing sources?**
- ☐ **Effectively summarizing a technical report?**
- ☐ **Writing a research paper on technical topics?**
- ☐ **Preparing PowerPoint presentations?**
- ☐ **Practicing speeches on technical topics?**
- ☐ **Organizing a project proposal?**
- ☐ **Proofreading?**

*Programming and other technical tutoring may be offered through the Computer Science department tutoring service.

Where?
Stright Hall
Room 112 C

When?
Monday & Wednesday
11:30am to 2:30pm
Tuesday & Thursday
3:30pm to 5:30pm

Questions?
E-mail farag@iup.edu
for more information

Need a different day or time? Get help at other convenient locations.

218 Eicher Hall: Walk-In Sessions
Monday-Thursday: 9am to 8pm | Friday: 9pm to 3pm

Library Satellite (First Floor): Walk-In Sessions
Sunday: 5pm to 10pm | Monday-Thursday: 8pm to 11pm

Online Writing Center: Appointment Only
Visit iup.edu/writingcenter to schedule a session 24 hours in advance.

COSC427 Cryptography
Fall 2017
Written Projects, Points 50+

Make a written project based **on any of the following topics or choose any other recent development or research on cryptography and its application.**

1. Cryptography and Digital Cash
2. Cryptography and Digital Signature
3. Application of Cryptography in Smart Card
4. Application of Cryptography in E-Commerce
5. NTRU Public-Key Cryptography
6. Elliptical Curve Cryptography
7. Elgamal Cryptography
8. Quantum Cryptography
9. Or, any topics of your choices

Please do not simply consult and copy from the textbook; you need to find more recent development on your chosen topics from the Internet.

Writing Style:

1. Font: New Times Roman
2. Space: Single Space
3. Margin: 1" all sides
4. Size: 12 point

5. The report must have a **coversheet** with
   (a) the title of the topic,
   (b) course name,
   (c) semester,
   (d) your full name, and
   (e) an abstract.

6. The body of the project begins from page 1 and should be between 5 and 7 pages.

7. Number all pages except the coversheet.

1: What types of threats do Cybersecurity professionals today encounter?

2: Who carries out cybercrime? Give one example for each group: Hactivist, Nation-State, Insider, Cybercriminal

3: Choose a type of business that is targeted by cybercrime and give an example.

4: History of Unix OS, including kernel, utilities, databases, system startup/configuration, and security

5: physical security: how does IUP keep its 15,000 students and 1,500 faculty secure in their person and posessions? give examples

6: pick any business or organization environment, and play the role of security planning specialist. What do you need to protect? From what threats are you protecting them? What are your priorities and budget? Conduct risk assessment and cost analsis, then set up your policy.

7: Research the following password cracking utilities, and test them on your own systems if you want to.

   John the Ripper, Cain and Abel, Crack, DSniff, Hash Code Cracker, SAM insider, and another of your choosing

8: Explore various network account authorization systems:

   NIS (network information service, formerly Yellow Pages, by Sun Microsystems)

   MIT Kerberos (part of OSF distributed computer environment)

   Net Info (now part of MacOS)

   Radius (remote authentication dial-in user service)

   LDAP (lightweight directory access protocol services)

   PAM (pluggable authentication module)

9: Explore and explain a few case studies of famous Personnel Security breaches, such as:

   Barings Bank (Nick Leeson)

   Aldrich Ames (CIA double agent)

   Jonathan Pollard (US Naval intelligence analyst)

   Robert Hannon (burglary)

   Los Alamos (nuclear plant security breach)

10: Read the following 2017 security reports:

https://www.csoonline.com/article/3153707/security/top-5-cybersecurity-facts-figures-and-statistics-for-2017.html

https://www.av-test.org/en/news/news-single-view/the-it-security-status-at-a-glance-the-av-test-security-report-20162017/

Summarize the reports, give statistics, and evaluate how prepared you yourself are to fight against the latest threats.
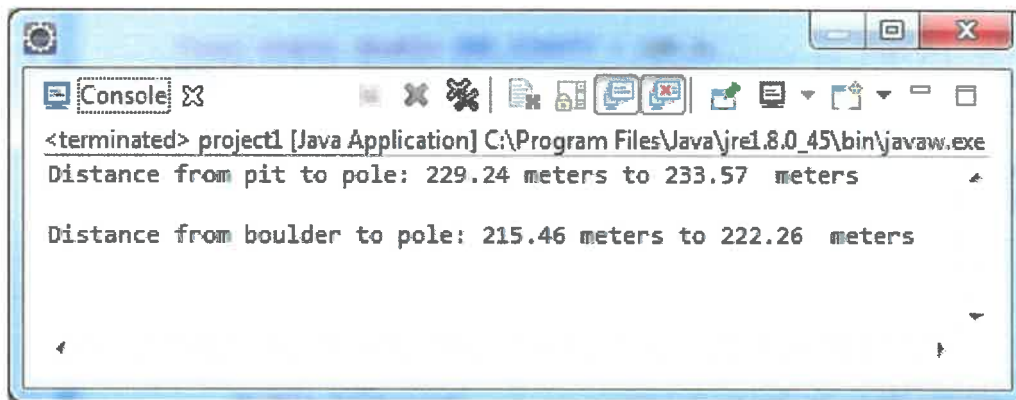
11: Explain physical security for servers in detail.

12: Explore and discuss different forms of backups.

You will find a pdf code file posted on Moodle under this project link containing a Java program written in the style you will be expected to use throughout this course. Your first programming project is to enter, compile, link, and run a program. You MUST type this program using an IDE or a text editor (Eclipse is recommended), **NOT a word processor**. DO NOT copy and paste the code, you MUST type it. As you enter the program, make sure that you type <mark>your name, student ID #, and your section number</mark> in the commented line '// **Typed By**:' Also type the date in the following line. Otherwise, you should enter just what you see on the given pdf file.

Important: Some of the characters in the pdf code file might not be displayed clearly unless you zoom in to at least 150%. Make sure all your typing will match exactly the pdf file.

Do not worry that the program contains Java features that we have not yet covered; these features will be covered soon. If you type everything correctly, when you run the program, you will see a display similar to the following Console Window (I used Eclipse in this case):

<mark>After you have entered the slightly modified program and run it to get the answers, extract the .java file from the directory containing your project (consult the links of "How to use IDE to compile/run" under item 8 "Lab Handouts and Code" posted on Moodle on how to identify the directory containing your project and therefore be able to access the source code file with the extension .java).</mark> This .java file needs to be uploaded to Moodle, see 'what do you need to submit?" section at the end of this project statement.

Second, after you run the program and the output Console window is displayed, do **one** of the following, depending on the last digit of your Banner ID number. Deliberately make one of the following TEN mistakes in your program and then try to compile again - choose the mistake whose number matches the **last digit** of your Banner ID number. You should get one or more error or warning messages. **Type the last digit of your Banner ID number, and the error/warning message(s) you got in the LAST line(s) of your code as comments (Just start each of these additional lines with** <mark>//</mark> **- double forward slashes indicate the line is a comment; thus, the compile will ignore it)**

0. Omit the semicolon from **lowSecond = BOULDER_POLE - 2.0;**
1. In the declaration of, **double   highSecond;**
    change the 'S' to lowercase, i.e., 's'.
2. In the line **public static void main** change the right parenthesis to]
3. Replace the comma '**,**' with '**+**' in
    System.out.printf("Distance from pit to pole: %.2f" , lowFirstDistance);
4. Omit the // on the line // **Display results**
5. Change the declaration, **final static double ONE_EIGHTY = 180.0;**
    to   final static double ONE_EIGHTY;
6. Misspell getDistances as getDistance in the statement
    returnValues = getDistances (highFirst, highSecond);
7. Misspell **double** in **double   atPitAngle;** as doble.
8. Change // to /* in // **Display results**
9. Replace the **return array;** statement with   return "done";

Do NOT save your program with the error in it. Do NOT print out your program with the error in it. **Be sure to look at the entire message window to find all error/warning messages.**

What Do You Need to Submit?

You need to upload ONE file into Moodle:

- The electronic version of your source code after you successfully compiled and ran it. **This is one single file which has the extension .java**. You need to identify the project directory to extract that file from it. Please see above for details. Do NOT forget to type in the last lines of your source code file (.java) the error/warning message(s) you induced.

Very Important Note: Do NOT upload any other files created by the IDE; just the file with the extension ".java" and that is it.

COSC 316 - Project 1
(Due on 9-19-2016 at 11:15 AM)

All submissions must be computer-generated files. Make sure you upload your Power Point presentation on Moodle before the stated deadline

The class will be divided into three groups based on last names alphabetical order. These groups are listed below. Students in each one of these groups will be assigned one of the three topics described at the end of this assignment statement. For example. Students in group #1 are assigned the first topic, and those in group #2 are assigned the second topic, etc.

Sec 1 Groups:

- Group #1 members: Baumgartner, Michael L., Gatone, Nigel, Karkoska, Cody S., Leitner, Devin J., Mazenko, Benjamin M., Morris, Brandon M., Niel, Brett M., Reed, Tyler A., Schmidt, Deric C., & Yard, Jesse F.

- Group #2 members: Brodginski, Andrew R., Heffner, Zachary N., Keady, Chase D., Maisch, David R., McMullen, Paul W., Myers, Richard E., O'Neal, Steven J., Rogish, Jeri M., & Shoup, Travis B.

- Group #3 members: Buckery, Dervin, Hunter, Jared D., Krachanko, Aleksandr M., Martin, Joshua A., Morgan, Matthew J., Nagle, Dashal C., Patsilevas, Kevin M., Saxman, Stephen N., & Tartaglia, Anthony V.

Sec 2 Groups:

- Group #1 members: Ajibade, Lekan S., Altimus, Seth T., Cornwell, John A., George, Rebecca K., Golden, Jonathan L., Hess, Russell D., Luther, Kristen M., Miller, Shane A., O'Saben, Stephen M., & Thach, Chon.

- Group #2 members: Al Homoud, Mahmood H., Brandis, Logan D., Fetterman, Cody T., Georgopoulos, Nectarios, Hanna, Slater D., Katinsky, Brandon T., McKillop, Alexander D., Murphy, Cailin A., & Shakespeare, Lloyd.
- Group #3 members: Allport, Seth C., Colagrande, Casey P., Gaston, Michael T., Gibson, Kenneth S., Harris, Jaron T., Klein, Joshua D., Mickey, Noah D., Mutair, Ziyad F., & Stearsman, Joshua J.

For an assigned security topic, a student will use the Web to find essential information on the assigned topic then will prepare a ==professional-quality== power-point presentation that summarizes her/his findings. The files for all presentations must be uploaded into Moodle before the stated deadline.

All students are required to present their Power Points in class according to the following presentation schedule. Each presentation MUST not exceed five minutes.

- On Monday - 9/19/16: the first ten students (student #1-10) will present, please check the class list posted on Moodle.
- On Wednesday - 9/21/16: the next nine students (students #11-19) will present, please check the class list posted on Moodle.
- On Friday - 9/23/16: the last nine students (student #20-28) will present, please check the class list posted on Moodle.

The three given topics are described below:

1. Look up "the paper that started the study of computer security." Prepare a summary of the key points. What in this paper specially addresses security in previously unexamined areas?
2. Find out who Kevin Mitnick was. What did he do? Who caught him? Write a short summary of his activities and why he is famous.

3. Explore the technique known as "iterative and incremental development." Then research "agile development." Make sure you also compare and contrast the two techniques in your presentation.

<mark>Make sure you list all resources you used in your presentation including URLs or other references</mark>

(End of Project)

COSC 356 - Project 2
(Due on 2-22-2016 at 9:30 AM)

All submissions must be computer-generated files. Make sure you upload your PP presentation and Paper on Moodle before the stated deadline. You also have to submit a hardcopy of the paper in class.

This assignment is a research project in which your final outcome will be a research paper that will address one of the assigned topics. *The paper should be limited to only FOUR pages including the reference section. Use 12-point font and double spacing. You must use at least two academically refereed, published references.*

Your paper must be as professional as possible and it must have the standard sections of any research publication (Abstract, Introduction, Background, Topic Description, methodology (if any), Conclusion, and References).

The table below lists all students in the class along with the assigned topics. Topics are taken from various Case Projects listed in your textbook.

Student Name	Assigned Topic
Boyer, Christopher	Case Project 1-2 Page 41
Delman, Colton	Case Project 1-3 Page 41
Dhaliwal, Parwhaz	Case Project 2-1 Page 86
Herzog, Nicholas	Case Project 2-6 Page 87
Marquart, Christopher	Case Project 2-3 Page 86-87
Rubach, Blake	Case Project 2-4 Page 87
Tyger, Connor	Case Project 2-5 Page 87
Venezia, Joseph	Case Project 2-7 Page 87

Students are also be asked to present their papers in class. Thus, you will also need to prepare a <mark>professional-quality</mark> Power Point presentation that summarizes your findings. *The files for all papers and presentations must be uploaded into Moodle before the stated deadline.*

All students are required to present their Power Points in class on Monday 2/22/2016. Each presentation MUST not exceed seven minutes.

<mark>**Make sure you list all resources you used in your paper and presentation including URLs or other references**</mark>

(End of Project)