IPRO 328 Spring 2008

Result of IPRO Deliverables

Project Plan	Grade: 1
<u>Midterm Report</u>	Grade: 1
Code of Ethics	Grade: 1

Work Results

Book R	esult	5	Exerci	<u>se Re</u>				
Revised Chap	oters	7	total time s	spent (
Completely N Chapters		3	average time s (min / prob					
Total Chapte	ers	10	average (out	e grade of 5)				
Book Ch	nange	<u>S</u>	Exerci	se Ch				
Insertions	497 Chai		Change	d				
Deletions	51	8	Added					
Total Changes	10	15	Deleted	k				
<u>Lecture Slid</u>	<u>le Res</u>	<u>ults</u>	Exerc	ise D				
Chapters w/ S	lides	5	21%					
Total Slide	S	152						
Avg Slides / Ch	apter	30.4	39%					

<u>Chapter Comments Score Board</u>

Team Member	Major	# Commented Chapters	Average/Chapter
Allen, David	Non-CS	10	12.2
Bathum, Nicholas	CS	8	4.8
Jeong, Seon	Non-CS	10	7.9
Johnson, Leland	CS	10	4.3
Kwak, Noh Hyup	Non-CS	10	8.5
Patel, Vivek	Non-CS	10	6.8
Schmitz, Peter	CS	8	4.1
Tilatti, Michael	Non-CS	10	11.0
Hammes, Katherine	Non-CS	2	5.0
Kofman, Roman	CS	2	5.0
Tran, Harry	Non-CS	2	6.5
Rymek, Phil	CS	2	5.5

Testing and Improving a New Text for Teaching Computer Science

Code of Ethics



Difficulty

Easy Medium Hard

Sverarching Standard

- All book-contributors will:
- Submit only original work
- Never act unfairly toward fellow members
- Fulfill all requirements set forth by the client
- Never lose sight of the best interest of the consumers

Paradigm of Code of Ethics

such as driving or making sandwiches. audience in mind.

Meeting Structure

2. Thursday IRC online chat 3. Other subteam meetings throughout the week

Name/Week	1/28-2/3	2/4-2/10	2/11-2/17	2/18-2/24	2/25-3/2	3/3-3/9	3/10-3/16	3/17-3/23	3/24-3/30	3/31-4/6	4/7-4/13	4/14-4/20	total
David Allen	7.0	6.0	6.8	9.6	13.5	12.3	3.0	5.5	6.0	7.5	9.0	7.0	93.2
Nicholas Bathum	7.3	3.5	7.0	11.5	10.0	10.0	7.0	1.0	6.0	3.0	8.0	6.0	80.3
Katherine Hammes	3.5	12.0	9.0	11.0	10.0	10.0	5.0	10.0	12.0	9.5	11.0	9.0	112.0
Seon Jeong	2.5	10.5	9.0	9.0	10.0	10.0	9.0	2.0	11.0	6.0	7.0	10.0	96.0
Leland Johnson	5.0	8.5	8.3	10.0	10.0	6.0	6.5	6.5	6.0	6.5	7.0	4.0	84.3
Roman Kofman	7.1	6.0	3.0	6.0	8.5	12.0	7.0	0.0	8.0	8.0	8.5	7.8	81.9
Noh Hyup Kwak	3.5	7.5	8.5	11.0	8.5	12.0	7.0	3.5	6.5	10.0	9.0	9.0	96.0
Vivek Patel	3.5	9.8	9.5	6.5	10.0	10.0	7.5	0.0	6.5	6.0	9.0	11.5	89.8
Phillip Rymek	5.0	10.0	10.0	10.0	8.0	9.0	8.0	0.0	9.0	8.5	9.0	10.0	96.5
Peter Schmitz	5.9	6.3	4.0	4.8	8.0	8.8	5.0	3.0	4.0	3.5	5.0	14.0	72.3
Michael Tilatti	5.0	10.0	6.5	6.0	10.0	10.5	6.0	0.0	9.0	6.0	9.0	8.0	86.0
Harry Tran	2.6	10.0	8.0	10.0	10.0	10.0	10.0	10.0	10.0	11.0	11.0	10.0	112.6
week total	57.9	100.1	89.6	105.4	116.5	120.6	81.0	41.5	94.0	85.5	102.5	106.3	1100.9
week average	4.8	8.3	7.5	8.8	9.7	10.1	6.8	3.5	7.8	7.1	8.5	8.9	91.7



- The book uses multicultural examples and exercises
- All of our content is original and created with our
- 1. Monday two and a half hour face-to-face meeting

IPRO Delive

- **Project Pl**
- Midterm Re
- Midterm Prese
 - **Final Repo**
- **IPRO Day Prese**
 - IPRO Day Po
 - Code of Et
 - Website
- Abstract **Meeting Mi**
 - CD-RON
- Team Debri

Mileston

Chapters 1 Midterm re Chapters ! **Final Repor** Deliverab

Time Spent

Project Plan

erable	Start	Finish			
lan	1/25/2008	2/22/2008			
eport	3/3/2008	3/14/2008			
entation	3/3/2008	3/14/2008			
ort	4/21/2008	5/2/2008			
entation	4/20/2008	5/2/2008			
oster	4/21/2008	4/25/2008			
:hics	2/15/2008	3/7/2008			
е	4/18/2008	4/25/2008			
ct	4/21/2008	4/25/2008			
nutes	1/25/2008	4/18/2008			
V	4/25/2008	5/2/2008			
iefing	5/5/2008	5/5/2008			
nes 4 and	Start	Finish			
- 4 and eport	2/4/2008	3/16/2008			
5 - 9	3/14/2008	4/28/2008			
rt and ples	3/14/2008	5/2/2008			

$\mathsf{IPRO}\ 328$ Spring 2008

Background

Most Traditional Computer Science Texts are:

- Long and Imposing
- Out of touch with student needs
- Out of touch with industry

Problem

Create an effective text:

•Assess and improve the text

- Create teaching tools
- Create new problem sets

Objectives

•Text itself

- •Revise or rewrite all 8 original chapters
- •Teaching Tools Create and test slides
- •Problem Sets •Test and revise for all 8 original chapters

Results

- One completely updated book
- A lot of edits based upon real results
- A largely complete set of lecture slides
- Problems rearranged, edited, and recreated based on student feedback

Testing and Improving a New Text for Teaching Computer Science

Phase One (Create original book draft)

Grossman

•They accomplished the following tasks:

- Improved & edited the text itself
- Developed 20-30 exercises per chapter and solutions for every exercise.
- Developed 5-6 programming examples
- Created figures & accompaniments
- Created two Model Eliciting Activities

- Returning members from last years IPRO taught the class the contents of the book.
- Homework was assigned to class and graded by whoever lectured that week.
- Grades were tracked using Google Docs and class input using iGroups – this drove changes to the book.

This innovative method allowed us to accomplish the following:



Phase Two (Test and Revise)



• We completely revised 7 of the chapters and created three entirely new chapters. • 5 of the 10 chapters have lecture slides, and they have all been successfully tested. • Problems from every chapter were revised and many new problems created.



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Editing Team 1: Katherine Hammes, Roman Kofman, **Phillip Rymek, Harry Tran**

- Created new versions of chapters 1 through 8
- Edited chapters 1 through 8 based upon others' comments
- Commented on chapters 9 and 10

Editing Team 2: Nicholas Bathum, Peter Schmitz

- Created new versions of chapters 9, 10
- Edited chapters 9 and 10 based upon others' comments
- Commented on chapters 1 through 8
- Initially helped the exercise team



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Testing and Improving a New Text for Teaching Computer Science

IPRO 328 Members

David Charles Allen, Nicholas Bathum, Katherine Hammes, Seon Jeong, Leland Johnson, Roman Kofman, Noh Hyup Kwak, Vivek Patel, Phillip Rymek, Peter Schmitz, Michael Tilatti, Harry Tran, Yacin Nadji (Student Advisor), David Grossman (Advisor)

Exercise Team: David Allen, Nicholas Bathum, Seon Jeong, Noh Kwak, Vivek Patel, Peter Schmitz, Michael Tilatti

- Responsible for learning Ruby and all concepts presented in the book.
- Completed all homeworks to test proficiency of the book.
- Commented on every chapter of the new book.

Development Cycle

Step B



Editing Teams modify new chapter based upon Exercise **Team's comments**

Grading Team grades homework turned in by Exercise Team

Exercise **Fixing Team** fixes exercises from chapter

Grading Team: Leland Johnson, Phillip Rymek

• Created lecture slides

• Taught the book in a lecture format

• Graded all the homeworks

• Commented on every chapter

Exercise Fixing Team: David <u>Allen, Seon Jeong, Noh Kwak,</u> Vivek Patel, Michael Tilatti

• Modified, deleted, and created problems for the book.

Populated new chapters with problems

• Commented on every chapter



