

Survey on Programming Attitudes

EECS 268 Programming II

This survey is designed to evaluate your programming experience and your perceptions and use of testing and design practices.

What is your KU ID? _____

Previous College Computer Science Courses (programming based)

How many college computer science courses have you taken at KU or elsewhere that contained a substantial computer programming component?

- 0
- 1
- 2
- 3
- 4 or more

Previous Other Computer Science Courses (programming based)

How many non-college computer science courses have you taken that contained a substantial computer programming component?

- none
- 1 semester in high school
- 2 semesters in high school
- 3 or more semesters in high school
- 1 semester or more elsewhere (short course or vocational school)

Previous Computer Programming Experience

Please rate your level of competence with the following programming languages? Circle one number for each language/group of languages. Use the following scale:

1. Never programmed in this language.
2. Minimal experience. Maybe compiled a test program.
3. Some experience. Wrote one or two small programs.
4. Substantial experience. Wrote several small to medium-sized programs.
5. Extensive experience. Wrote many programs.

C++	1	2	3	4	5
Java	1	2	3	4	5
Visual Basic	1	2	3	4	5
Python, Perl or other scripting based languages	1	2	3	4	5
JavaScript, html, ASP or other web based languages	1	2	3	4	5
Other, please specify _____	1	2	3	4	5

Time Since Last Programming

When did you last write a computer program in the following language?

Circle one number for each language/group of languages. Use the following scale:

1. Never programmed in this language before.
2. Within last three months.
3. Four to twelve months ago.
4. One to three years ago.
5. More than three years ago.

C++	1	2	3	4	5
Java	1	2	3	4	5
Visual Basic	1	2	3	4	5
Python, Perl or other scripting based languages	1	2	3	4	5
JavaScript, html, ASP or other web based languages	1	2	3	4	5
Other, please specify _____	1	2	3	4	5

Attitude Towards Testing

How important is it to test computer programs that you have written?

- not important, I never make mistakes
- not important, my projects are only for a grade in the class
- somewhat important, so I do a little bit of testing
- important; I try to test my programs if I still have time before the deadline
- very important; a project is not done until it is thoroughly tested

Test Timing

When do you write tests for your programs?

- never
- after I think the entire program is complete
- after I think an important portion of the program is complete (such as a class)
- after I think a small portion of the program is complete (such as a single function)
- before I have written any code
- before I have written a new important portion of the program (such as a class), but after I have tested other code that is finished
- before I have written a new small portion of the program (such as a single function), but after I have tested other code that is finished

Automated Testing Use

Do you ever write automated tests for your programs?

- yes, all the time
- yes, but only some of the time
- yes, I tried it once
- no, if I test, it is by hand (run program and look at output)

Automated Testing Frameworks

Have you ever used an automated testing framework like JUnit or CppUnit?

- yes, I use an automated testing framework often
- yes, I have used an automated testing framework before
- no, I have never used an automated testing framework

Attitude Toward Design

How important is it to design computer programs before they are written?

- not important, I just start programming and don't think about the design
- not important, I develop the design as I write the code
- somewhat important, so I do a little bit of design before I start writing code
- important; I try to design most of my programs before I start writing code
- very important; I never start programming until I have a thorough design complete

Design Techniques

How do you design your programs?

- I don't design, I just write code
- I use visual models like the UML or flowcharts
- I sketch the design in the code with class declarations before writing any function definitions
- I write out the design in natural language
- I use a combination of visual models and natural language
- I let the design evolve as I write the code; I document the design with visual models and/or natural language
- I let the design evolve as I write the code; the code is the design documentation

Attitude Towards Test-First Programming

Test-first programming is the practice by which an automated test case is written before the code is implemented. The implemented code is written to pass the test case. The design of the system emerges as the programmer repeatedly writes tests, then writes the code to make the test pass, then improves both the code and tests in short rapid iterations.

What is your opinion of test-first programming?

- I don't think it would ever work
- I think it might be a good approach on small projects
- I think it might be a good approach on projects where programmers have a lot of programming experience
- I think it might be a good approach on projects where programmers understand the domain well
- I think it might be a good approach on any project

Attitude Towards Test-Last Programming

Test-last programming is the practice by which a test case is written after the code is implemented. The design of the system is usually developed at least partially before any code is written.

What is your opinion of test-last programming?

- I don't think it would ever work
- I think it might be a good approach on small projects
- I think it might be a good approach on projects where programmers have a lot of programming experience
- I think it might be a good approach on projects where programmers understand the domain well
- I think it might be a good approach on any project

Choosing Between Test-First and Test-Last Programming

If you had a choice of writing code with a test-first or test-last approach, which would you choose?

- test-first
- test-last

Why?

Age

How old are you today?

- 18 to 22 years
- 23 to 26 years
- 27 to 35 years
- over 35 years

Gender

What is your gender?

- Male
- Female

Race

Which category best fits your race?

- White
- African or African American
- Asian
- Hispanic
- Other

Classification

How does the university currently classify you?

- Freshman
- Sophomore
- Junior
- Senior
- Graduate
- Other

Major

What is your major?

- Computer Science
- Computer Engineering
- Electrical Engineering
- Other: please specify _____

Overall GPA

What is your overall GPA?

- 3.5 – 4.0
- 3.0 – 3.5
- 2.5 – 3.0
- 2.0 – 2.5
- 1.5 – 2.0
- 1.0 – 1.5
- below 1.0

Major GPA

What is your GPA in your major?

- 3.5 – 4.0
- 3.0 – 3.5
- 2.5 – 3.0
- 2.0 – 2.5
- 1.5 – 2.0
- 1.0 – 1.5
- below 1.0

Additional Comments

Is there anything else related to this study that you would like to comment on that we have missed or that you would like to add?