Background Information

Please enter your email address

How do you test your own code? (Check ALL that apply)
If you test differently depending on the language or programming environment, explain.

- [ ] Print statements
- [ ] Unit tests
- [ ] Testing tools
- [ ] Other:

Do you have experience with creating/editing/maintaining unit tests?

- ○ Yes
- ○ No

Unit Testing

Please rank the following motivations for writing unit tests based on your experience (Drag up or down to reorder).

- To ensure that a unit functions as expected
- To accept a unit from other sources
- To specify a unit (test first)
- To improve the program quality in general
- To meet program requirements

Other:	

How do you spend your program development time (in percentage)?

Writing new code	0
Writing new tests	0
Debugging and fixing	0
Refactoring	0
Other:	0
Total	0

How important are the following aspects for you when you write new unit tests?

	Not at all important	Slightly important	Moderately important	Very important	Extremely important
Code coverage	○	○	○	○	○
Execution speed	○	○	○	○	○
Robustness against code changes	○	○	○	○	○
How realistic the test scenario is	○	○	○	○	○
How easily faults can be localised/debugged if the test fails	○	○	○	○	○
How easily the test can be updated when the underlying code changes	○	○	○	○	○
Sensitivity against code changes	○	○	○	○	○

Please select which techniques you apply when writing new tests (Check ALL that apply)

- [ ] Automated test generation
- [ ] Code coverage analysis
- [ ] Mutation analysis
- [ ] Test-driven development
- [ ] Systematic testing approaches
- [ ] Mocking/stubbing
- [ ] Other:
- [ ] Never

What do you use automated unit test generation for? (Check ALL that apply)

- [ ] Exercising specifications
- [ ] Exercising assertions in the code
- [ ] Exercising parameterised unit tests
- [ ] Finding crashes and undeclared exceptions
- [ ] Regression testing
- [ ] To complement manually written tests

☐ Other:

Please rank the following aspects of writing a new unit test according to their difficulty (Drag up or down to reorder)

- Determining what to check
- Finding and creating relevant input values
- Identifying which code/scenarios to test
- Finding a sequence of calls to bring the unit under test into the target state
- Isolating the unit under test

What makes it difficult to fix a failing test? Please rank by importance (Drag up or down to reorder)

- The test reflects outdated behavior
- The test is difficult to understand
- The code under test is difficult to understand
- The test reflects unrealistic behavior
- The test is flaky (it fails non-deterministically)

Please indicate your level of agreement with the following statements

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
Writing unit tests is difficult	○	○	○	○	○	○	○
I enjoy writing unit tests	○	○	○	○	○	○	○

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
I would like to have more tool support when writing unit tests	○	○	○	○	○	○	○
I would like to have more unit tests	○	○	○	○	○	○	○
Maintaining unit tests is difficult	○	○	○	○	○	○	○
I usually have sufficiently many unit tests	○	○	○	○	○	○	○