

Method Naming Standards Survey

Start of Block: Intro.

Introduction.

Survey Title: Method Naming Standards

This survey contains 10 questions related to the standards programmers tend to practice while naming methods. The survey is to assist us, as researchers, in identifying the common standards software developers/programmers adopt while naming method.

The survey takes approximately 10-15 minutes. The questions investigate your opinions and thoughts about multiple naming guidelines via a likert scale. Method name examples (from open source) are provided for better insight of the intent of each question. Additionally, each question is followed by a text box for a convenient express of your own thoughts.

The survey does not collect any identifying information.

If you have any questions, please contact Prof. Jonathan I. Maletic at (jmaletic@kent.edu).

This is a collaborative project with researchers from the following institutions
Kent State University, Ohio, USA
Rochester Institute of Technology, NY, USA
Bowling Green State university, Ohio, USA

End of Block: Intro.

Start of Block: Q1

Question 1: Naming Style

	Strongly Agree (1)	Agree (2)	Disagree (3)	Strongly Disagree (4)
When naming methods, the name should use a standard naming style such as camelCase or under_score; Camel case uses upper case letters for each word. Underscore uses " _ " to separate words. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q1 Examples**Follows the standard:**

getFullName(), getScriptState(), isValidName(), call_with_default(), garbage_collection() and check_static_allocation_size()

Does not follow the standard:

getfullName(), getscriptstate()

Q1 Comment Additional Comments:

Page Break

End of Block: Q1

Start of Block: Q2

Question 2: Verb Phrase

	Strongly Agree (1)	Agree (2)	Disagree (3)	Strongly Disagree (4)
When naming methods, the name should always contain a verb(s) or verb phrase that refers to the behavior of the method. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q2 Examples

Follows the standard:

manage_caching_sizes(), computeProductBlockingSizes() and get_cached_node()

Does not follow the standard:

x_cached_node()

Q2 Comment Additional Comments:

Page Break

End of Block: Q2

Start of Block: Q3

Question 3: Dictionary Terms

	Strongly Agree (1)	Agree (2)	Disagree (3)	Strongly Disagree (4)
When naming methods, developers should use only natural language dictionary words and/or familiar/domain-relevant terms. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q3 Examples

Follows the standard:

FindLength()

Does not follow the standard:

abcdefg(), cccc(), and aa2020()

Q3 Comment Additional Comments:

Page Break

End of Block: Q3

Start of Block: Q4

Questions 4: Abbreviations

	Strongly Agree (1)	Agree (2)	Disagree (3)	Strongly Disagree (4)
When naming methods, the chosen name should contain only known or standard (i.e., recognized by others within the company) abbreviated terms. A poor abbreviation is one that has multiple possible expansions, interpretations or is not typically used within the system domain.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q4 Examples

Follows the standard:

getStr(), pyConnection(), get_algo(), db_connection() and that contains abbreviations for string, python, algorithm and database respectively.

Does not follow the standard:

repr(), as the programmer here is not sure about the correct expansion of this method name is it repair() or representation().

getProtoNameNode() The abbreviation "Proto" here stands for "Protocol" and it could be also for "Prototype".

Q4 Comment Additional Comments:

Page Break

End of Block: Q4

Start of Block: Q5

Questions 5: Acronyms

	Strongly Agree (1)	Agree (2)	Disagree (3)	Strongly Disagree (4)
When naming methods, the name should contain only known or standard (i.e, recognized by others in the company) acronyms. A poor acronyms is one that has multiple possible expansions, interpretations or is not typically used within the system domain. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q5 Examples

Follows the standard:

GUI_interface(), get_URL(), get_FIFO(), convertToASCII(), XML_format(), IDE_test(), DOM_tree().

Does not follow the standard:

get_QWE() and SendAAAAA().

Q5 Comment Additional Comments:

Page Break

End of Block: Q5

Start of Block: Q6

Question 6: Size

Short

Long

0 2 3 5 6 8 9 11 12 14 15

When naming methods, the maximum number
of words in a name should not be greater
than: ()



Q6 Examples

Follows the standard:

AddDevices(), getEntryNode() and getEntryFirstNode()

Does not follow the standard:

returnfalseifnosetterwasfoundandifreportnosetterfoundisfalse() as it is excessively long.

find()as it is not descriptive.

c() as it is excessively short.

Q6 Comment Additional Comments:

Page Break

End of Block:Q6

Start of Block: Q7

Question 7: Idioms and Slang

	Strongly Agree (1)	Agree (2)	Disagree (3)	Strongly Disagree (4)
When naming methods, the name should not contain personal expressions, idioms, or unknown slang. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q7 Examples

Follows the standard:

GetRectangularLength()

Does not follow the standard:

Personal expressions: myFriendName().

Idioms: Cutting_corners() to mean not performing a task or duty correctly in order to save time or money.

Slangs: CurveBall(), to refer to something tricky or unexpected.

Q7 Comment Additional Comments:

Page Break _____

End of Block: Q7

Start of Block: Q8

Question 8: Grammatical Structure

	Strongly Agree (1)	Agree (2)	Disagree (3)	Strongly Disagree (4)
When naming methods, names with multiple words should be in a grammatically correct sentence structure. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q8 Examples

Follows the standard:

registerManagedResource()The grammatical structure of this name is in grammatically correct sentence structure that starts with a verb followed by an adjective and ends with a noun.

Does not follow the standard:

managedResourceRegister()The grammatical structure of this name is not in a grammatically correct sentence structure as it starts with an adjective followed by a noun and ends with a verb/noun.

Q8 Comments Additional Comments:

Page Break

End of Block: Q8

Start of Block: Q9

Question 9: Full Words

	Strongly Agree (1)	Agree (2)	Disagree (3)	Strongly Disagree (4)
When naming methods, the name should use full words rather than a single letter to clearly indicate the task of the method. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q9 Examples

Follows the standard:

dbConnection()

Does not follow the standard:

c() instead of dbConnection()

Q9 Comment Additional Comments:

Page Break

End of Block: Q9

Start of Block: Q10

Q10 Question 10: Prefix/Suffix

	Strongly Agree (1)	Agree (2)	Disagree (3)	Strongly Disagree (4)
When naming methods, the name should not contain a prefix/suffix that is a term from the system. This standard does not apply to languages such as C that do not have namespaces. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q10 Examples

Follows the standard:

getItemPath() and get_empty_key()

Does not follow the standard:

gimpltemGetPath() and swift_stdlib_u_char() where *gimp* and *swift* are the names of the software the method appears in.

Q10 Comment Additional Comments:

Page Break

End of Block: Q10

Start of Block: Missed Standards

Missed Standards Is there any other method naming standards that you feel are important? If so, please provide some details of the standard.

End of Block: Missed Standards

Start of Block: Demo

Demographic Information

The following pages will contain few demographic questions related to your: adherence to coding standards, programming language and years of experience.

End of Block: Demo

Start of Block: Investigating developers adherence

Pre-Question Coding Standards

	Very Strict (1)	Strict (2)	No Standards (3)	Slightly Strict (4)	Not Strict (5)
At your place of work, are there strict naming conventions in their coding standards? (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Pre-Question Please give a short description of the naming coding standards you use:

End of Block: Investigating developers adherence

Start of Block: Developer programming languages

Demographic 1 Which programming language are you familiar with?

- ☐ C++
- ☐ Python
- ☐ Java
- ☐ C
- ☐ C#
- ☐ JavaScript
- ☐ Other language? Please specify below.

End of Block: Developer programming languages

Start of Block: Years of experience

Demographic 2 How many years of programming experience do you have?

- ☐ Less than a year
- ☐ 1 - 2 years
- ☐ 3 - 4 years
- ☐ 5 - 9 years
- ☐ 10+ years
- ☐ Prefer not to say

End of Block: Years of experience