# This query is used to sample commits for labeling.

# Use different seed to get different samples.

# Since the GitHub database contains duplicates it is recommended to sample more than the #needed batch size

# Run with Legacy Sql, allow large results

# into citric-trees-187317:repo\_attributes.commit\_samples\_v2\_tmp

select \*

FROM

[citric-trees-187317.repo\_attributes.valid\_commits]

# Batch 1

#where rand(9746492) < 0.1

# Batch 2

where rand(79324) < 0.1

#### finding number of matches

#(

#(LENGTH(REGEXP\_REPLACE(lower(message),

#'', '@'))

#-

# LENGTH(REGEXP\_REPLACE(lower(message),

# '', '')))

#)

####

# Replace

# (aren't|didn't|don't|doesn't|isn't|lack|n't|never|no|nobody|none|not|nothing|weren't|without|won't)

# in

#(aren\'t|didn\'t|don\'t|doesn\'t|isn\'t|lack|n\'t|never|no|nobody|none|not|nothing|weren\'t|without|won\'t)

# replace \s\S with \\s\\S

# replace \s with \\s

# (^|$|[^a-z\_])-> ‘’

# ?: -> ‘’

# Use Standard sql

SELECT

repo\_name

, commit

#, subject

, message

, (LENGTH(REGEXP\_REPLACE(lower(message), '(\\s|\\.|\\?|\\!|\\[|\\]|\\)|\\:|^|$|\\,|\'|")((choose|take|set|use)\\s\*(the|a)?\\s\*correct|(not|isn\'t|doesn\'t)\\s+work(s|ing)?|bad initialization|buffer overflow|bug(s|z)?|bugfix(es)?|correct\\s\*(a|the|some|few|this)|correct(ed|ion|ly|s)?|dangling pointer|deadlock|defect|double free|error|fail(ed|s)?|failure(s)?|fault(s)?|faulty initialization|fix(ed|es)?|fixin(s)?|fixing(s)?|fixup(s)?|flaw(s)?|hang|heap overflow|incorrect(ly)?|memory leak|missing\\s(default value|initialization|switch case)|mistake(s|n|nly)?|null pointer|overrun|problem(s)|race condition|resource leak|revert|segmentation fault|workaround|wrong(nly)?)(\\s|\\.|\\?|\\!|\\[|\\]|\\)|\\:|^|$|\\,|\'|")', '#'))

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LENGTH(REGEXP\_REPLACE(lower(message), '(\\s|\\.|\\?|\\!|\\[|\\]|\\)|\\:|^|$|\\,|\'|")((choose|take|set|use)\\s\*(the|a)?\\s\*correct|(not|isn\'t|doesn\'t)\\s+work(s|ing)?|bad initialization|buffer overflow|bug(s|z)?|bugfix(es)?|correct\\s\*(a|the|some|few|this)|correct(ed|ion|ly|s)?|dangling pointer|deadlock|defect|double free|error|fail(ed|s)?|failure(s)?|fault(s)?|faulty initialization|fix(ed|es)?|fixin(s)?|fixing(s)?|fixup(s)?|flaw(s)?|hang|heap overflow|incorrect(ly)?|memory leak|missing\\s(default value|initialization|switch case)|mistake(s|n|nly)?|null pointer|overrun|problem(s)|race condition|resource leak|revert|segmentation fault|workaround|wrong(nly)?)(\\s|\\.|\\?|\\!|\\[|\\]|\\)|\\:|^|$|\\,|\'|")', '')))

As bug\_fix\_regex\_count

, (LENGTH(REGEXP\_REPLACE(lower(message), '(((\\s|\\.|\\?|\\!|\\[|\\]|\\)|\\:|^|$|\\,|\'|")fix(ed|s|es|ing)?.{1,40}(#|(camel|snake|kebab|flat|lower|upper)\\s\*case|code review|coding style|comment(s)?|cosmetic|cr(s)?(-)?|documentation|format(s|ing)?|help|remark(s)|space(s)?|style|styling|typo(s)?|warning(s)?|whitespace(s)?)(\\s|\\.|\\?|\\!|\\[|\\]|\\)|\\:|^|$|\\,|\'|"))|((#|(camel|snake|kebab|flat|lower|upper)\\s\*case|code review|coding style|comment(s)?|cosmetic|cr(s)?(-)?|documentation|format(s|ing)?|help|remark(s)|space(s)?|style|styling|typo(s)?|warning(s)?|whitespace(s)?)(\\s|\\.|\\?|\\!|\\[|\\]|\\)|\\:|^|$|\\,|\'|").{1,40}(\\s|\\.|\\?|\\!|\\[|\\]|\\)|\\:|^|$|\\,|\'|")fix(ed|s|es|ing)?(\\s|\\.|\\?|\\!|\\[|\\]|\\)|\\:|^|$|\\,|\'|"))|((error check(ing)?|error handling|error message(s)?|error report(s|ing)?|exception handling|fixed point)))', '#'))

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LENGTH(REGEXP\_REPLACE(lower(message), '(((\\s|\\.|\\?|\\!|\\[|\\]|\\)|\\:|^|$|\\,|\'|")fix(ed|s|es|ing)?.{1,40}(#|(camel|snake|kebab|flat|lower|upper)\\s\*case|code review|coding style|comment(s)?|cosmetic|cr(s)?(-)?|documentation|format(s|ing)?|help|remark(s)|space(s)?|style|styling|typo(s)?|warning(s)?|whitespace(s)?)(\\s|\\.|\\?|\\!|\\[|\\]|\\)|\\:|^|$|\\,|\'|"))|((#|(camel|snake|kebab|flat|lower|upper)\\s\*case|code review|coding style|comment(s)?|cosmetic|cr(s)?(-)?|documentation|format(s|ing)?|help|remark(s)|space(s)?|style|styling|typo(s)?|warning(s)?|whitespace(s)?)(\\s|\\.|\\?|\\!|\\[|\\]|\\)|\\:|^|$|\\,|\'|").{1,40}(\\s|\\.|\\?|\\!|\\[|\\]|\\)|\\:|^|$|\\,|\'|")fix(ed|s|es|ing)?(\\s|\\.|\\?|\\!|\\[|\\]|\\)|\\:|^|$|\\,|\'|"))|((error check(ing)?|error handling|error message(s)?|error report(s|ing)?|exception handling|fixed point)))', '')))

As valid\_fix\_regex\_count

, (LENGTH(REGEXP\_REPLACE(lower(message), '(\\s|\\.|\\?|\\!|\\[|\\]|\\)|\\:|^|$|\\,|\'|")(lack|n\'t|never|nobody|none|not|nothing|without)(\\s|\\.|\\?|\\!|\\[|\\]|\\)|\\:|^|$|\\,|\'|").{0,20}(\\s|\\.|\\?|\\!|\\[|\\]|\\)|\\:|^|$|\\,|\'|")((choose|take|set|use)\\s\*(the|a)?\\s\*correct|(not|isn\'t|doesn\'t)\\s+work(s|ing)?|bad initialization|buffer overflow|bug(s|z)?|bugfix(es)?|correct\\s\*(a|the|some|few|this)|correct(ed|ion|ly|s)?|dangling pointer|deadlock|defect|double free|error|fail(ed|s)?|failure(s)?|fault(s)?|faulty initialization|fix(ed|es)?|fixin(s)?|fixing(s)?|fixup(s)?|flaw(s)?|hang|heap overflow|incorrect(ly)?|memory leak|missing\\s(default value|initialization|switch case)|mistake(s|n|nly)?|null pointer|overrun|problem(s)|race condition|resource leak|revert|segmentation fault|workaround|wrong(nly)?)(\\s|\\.|\\?|\\!|\\[|\\]|\\)|\\:|^|$|\\,|\'|")', '#'))

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LENGTH(REGEXP\_REPLACE(lower(message), '(\\s|\\.|\\?|\\!|\\[|\\]|\\)|\\:|^|$|\\,|\'|")(lack|n\'t|never|nobody|none|not|nothing|without)(\\s|\\.|\\?|\\!|\\[|\\]|\\)|\\:|^|$|\\,|\'|").{0,20}(\\s|\\.|\\?|\\!|\\[|\\]|\\)|\\:|^|$|\\,|\'|")((choose|take|set|use)\\s\*(the|a)?\\s\*correct|(not|isn\'t|doesn\'t)\\s+work(s|ing)?|bad initialization|buffer overflow|bug(s|z)?|bugfix(es)?|correct\\s\*(a|the|some|few|this)|correct(ed|ion|ly|s)?|dangling pointer|deadlock|defect|double free|error|fail(ed|s)?|failure(s)?|fault(s)?|faulty initialization|fix(ed|es)?|fixin(s)?|fixing(s)?|fixup(s)?|flaw(s)?|hang|heap overflow|incorrect(ly)?|memory leak|missing\\s(default value|initialization|switch case)|mistake(s|n|nly)?|null pointer|overrun|problem(s)|race condition|resource leak|revert|segmentation fault|workaround|wrong(nly)?)(\\s|\\.|\\?|\\!|\\[|\\]|\\)|\\:|^|$|\\,|\'|")', '')))

As negeted\_bug\_fix\_regex

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(((LENGTH(REGEXP\_REPLACE(lower(message), '(\\s|\\.|\\?|\\!|\\[|\\]|\\)|\\:|^|$|\\,|\'|")((choose|take|set|use)\\s\*(the|a)?\\s\*correct|(not|isn\'t|doesn\'t)\\s+work(s|ing)?|bad initialization|buffer overflow|bug(s|z)?|bugfix(es)?|correct\\s\*(a|the|some|few|this)|correct(ed|ion|ly|s)?|dangling pointer|deadlock|defect|double free|error|fail(ed|s)?|failure(s)?|fault(s)?|faulty initialization|fix(ed|es)?|fixin(s)?|fixing(s)?|fixup(s)?|flaw(s)?|hang|heap overflow|incorrect(ly)?|memory leak|missing\\s(default value|initialization|switch case)|mistake(s|n|nly)?|null pointer|overrun|problem(s)|race condition|resource leak|revert|segmentation fault|workaround|wrong(nly)?)(\\s|\\.|\\?|\\!|\\[|\\]|\\)|\\:|^|$|\\,|\'|")', '#'))

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LENGTH(REGEXP\_REPLACE(lower(message), '(\\s|\\.|\\?|\\!|\\[|\\]|\\)|\\:|^|$|\\,|\'|")((choose|take|set|use)\\s\*(the|a)?\\s\*correct|(not|isn\'t|doesn\'t)\\s+work(s|ing)?|bad initialization|buffer overflow|bug(s|z)?|bugfix(es)?|correct\\s\*(a|the|some|few|this)|correct(ed|ion|ly|s)?|dangling pointer|deadlock|defect|double free|error|fail(ed|s)?|failure(s)?|fault(s)?|faulty initialization|fix(ed|es)?|fixin(s)?|fixing(s)?|fixup(s)?|flaw(s)?|hang|heap overflow|incorrect(ly)?|memory leak|missing\\s(default value|initialization|switch case)|mistake(s|n|nly)?|null pointer|overrun|problem(s)|race condition|resource leak|revert|segmentation fault|workaround|wrong(nly)?)(\\s|\\.|\\?|\\!|\\[|\\]|\\)|\\:|^|$|\\,|\'|")', ''))))

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((LENGTH(REGEXP\_REPLACE(lower(message), '(((\\s|\\.|\\?|\\!|\\[|\\]|\\)|\\:|^|$|\\,|\'|")fix(ed|s|es|ing)?.{1,40}(#|(camel|snake|kebab|flat|lower|upper)\\s\*case|code review|coding style|comment(s)?|cosmetic|cr(s)?(-)?|documentation|format(s|ing)?|help|remark(s)|space(s)?|style|styling|typo(s)?|warning(s)?|whitespace(s)?)(\\s|\\.|\\?|\\!|\\[|\\]|\\)|\\:|^|$|\\,|\'|"))|((#|(camel|snake|kebab|flat|lower|upper)\\s\*case|code review|coding style|comment(s)?|cosmetic|cr(s)?(-)?|documentation|format(s|ing)?|help|remark(s)|space(s)?|style|styling|typo(s)?|warning(s)?|whitespace(s)?)(\\s|\\.|\\?|\\!|\\[|\\]|\\)|\\:|^|$|\\,|\'|").{1,40}(\\s|\\.|\\?|\\!|\\[|\\]|\\)|\\:|^|$|\\,|\'|")fix(ed|s|es|ing)?(\\s|\\.|\\?|\\!|\\[|\\]|\\)|\\:|^|$|\\,|\'|"))|((error check(ing)?|error handling|error message(s)?|error report(s|ing)?|exception handling|fixed point)))', '#'))

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LENGTH(REGEXP\_REPLACE(lower(message), '(((\\s|\\.|\\?|\\!|\\[|\\]|\\)|\\:|^|$|\\,|\'|")fix(ed|s|es|ing)?.{1,40}(#|(camel|snake|kebab|flat|lower|upper)\\s\*case|code review|coding style|comment(s)?|cosmetic|cr(s)?(-)?|documentation|format(s|ing)?|help|remark(s)|space(s)?|style|styling|typo(s)?|warning(s)?|whitespace(s)?)(\\s|\\.|\\?|\\!|\\[|\\]|\\)|\\:|^|$|\\,|\'|"))|((#|(camel|snake|kebab|flat|lower|upper)\\s\*case|code review|coding style|comment(s)?|cosmetic|cr(s)?(-)?|documentation|format(s|ing)?|help|remark(s)|space(s)?|style|styling|typo(s)?|warning(s)?|whitespace(s)?)(\\s|\\.|\\?|\\!|\\[|\\]|\\)|\\:|^|$|\\,|\'|").{1,40}(\\s|\\.|\\?|\\!|\\[|\\]|\\)|\\:|^|$|\\,|\'|")fix(ed|s|es|ing)?(\\s|\\.|\\?|\\!|\\[|\\]|\\)|\\:|^|$|\\,|\'|"))|((error check(ing)?|error handling|error message(s)?|error report(s|ing)?|exception handling|fixed point)))', ''))))

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((LENGTH(REGEXP\_REPLACE(lower(message), '(\\s|\\.|\\?|\\!|\\[|\\]|\\)|\\:|^|$|\\,|\'|")(lack|n\'t|never|nobody|none|not|nothing|without)(\\s|\\.|\\?|\\!|\\[|\\]|\\)|\\:|^|$|\\,|\'|").{0,20}(\\s|\\.|\\?|\\!|\\[|\\]|\\)|\\:|^|$|\\,|\'|")((choose|take|set|use)\\s\*(the|a)?\\s\*correct|(not|isn\'t|doesn\'t)\\s+work(s|ing)?|bad initialization|buffer overflow|bug(s|z)?|bugfix(es)?|correct\\s\*(a|the|some|few|this)|correct(ed|ion|ly|s)?|dangling pointer|deadlock|defect|double free|error|fail(ed|s)?|failure(s)?|fault(s)?|faulty initialization|fix(ed|es)?|fixin(s)?|fixing(s)?|fixup(s)?|flaw(s)?|hang|heap overflow|incorrect(ly)?|memory leak|missing\\s(default value|initialization|switch case)|mistake(s|n|nly)?|null pointer|overrun|problem(s)|race condition|resource leak|revert|segmentation fault|workaround|wrong(nly)?)(\\s|\\.|\\?|\\!|\\[|\\]|\\)|\\:|^|$|\\,|\'|")', '#'))

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LENGTH(REGEXP\_REPLACE(lower(message), '(\\s|\\.|\\?|\\!|\\[|\\]|\\)|\\:|^|$|\\,|\'|")(lack|n\'t|never|nobody|none|not|nothing|without)(\\s|\\.|\\?|\\!|\\[|\\]|\\)|\\:|^|$|\\,|\'|").{0,20}(\\s|\\.|\\?|\\!|\\[|\\]|\\)|\\:|^|$|\\,|\'|")((choose|take|set|use)\\s\*(the|a)?\\s\*correct|(not|isn\'t|doesn\'t)\\s+work(s|ing)?|bad initialization|buffer overflow|bug(s|z)?|bugfix(es)?|correct\\s\*(a|the|some|few|this)|correct(ed|ion|ly|s)?|dangling pointer|deadlock|defect|double free|error|fail(ed|s)?|failure(s)?|fault(s)?|faulty initialization|fix(ed|es)?|fixin(s)?|fixing(s)?|fixup(s)?|flaw(s)?|hang|heap overflow|incorrect(ly)?|memory leak|missing\\s(default value|initialization|switch case)|mistake(s|n|nly)?|null pointer|overrun|problem(s)|race condition|resource leak|revert|segmentation fault|workaround|wrong(nly)?)(\\s|\\.|\\?|\\!|\\[|\\]|\\)|\\:|^|$|\\,|\'|")', ''))))) > 0) as bq\_classification

# Refactor

# Refactor :build\_refactor\_regex()

,

(LENGTH(REGEXP\_REPLACE(lower(message),'((^|$|[^a-z\_])(clean(ing)?(-| )?up(s)?|call(s|ed|ing)?[\\s\\S]{1,50}instead|collaps(e|es|ed|ing)|consolidat(e|es|ed|ing)|decompos(e|es|ed|ing)|drop(ed|s|ing)?( back)|encapsulat(e|es|ed|ing)|gereneliz(e|es|ed|ing)|optimiz(e|es|ed|ing|ations)|pull(ed|s|ing)? (up|down)|re(-)?(write|wrote)|re(-| )?factor(ed|s|ing|ings)?|re(-)?implement(ed|s|ing)?|renam(e|es|ed|ing|ings)|better nam(e|es|ing)|re(-)?organiz(e|es|ed|ing)|re(-)?organization|re(-)?work(ed|s|ing|ings)?|reorg|simplif(y|es|ied|ying|ication)|suppress(es|ed|ing)? warning(s)?|unif(y|ies|ied|ing)|uninline|beef(ed|s|ing)? up|refactor(ing)?(s)?|code improvement(s)?|revis(e|es|ed|ing)|re(-)?construct(s|ed|ing)?|re(-)?(write|write|wrote|writing)|re(-)?cod(e|ed|es|ing)|factor(ed|s|ing)? out|re(-| )?packag(e|es|ed|ing))(^|$|[^a-z\_]))|((((^|$|[^a-z\_])(clean(ing|s|ed)?clean(ing)?(-| )?up(s)?|combin(e|es|ed|ing)|compos(e|es|ed|ing)|de(-| )?compos(e|es|ed|ing)|convert(ed|s|ing)?|dead|deprecat(e|es|ed|ing)|drop(ed|s|ing)?|duplicat(e|es|ed|ing)|extract(ed|s|ing)?|improv(e|es|ed|ing)|increas(e|es|ed|ing)|(make|makes|made|making)|mov(e|es|ed|ing)|rebuil(d|ds|ding|t)|replac(e|es|ed|ing)|redundant|re(-|)?organiz(e|es|ed|ing)|re(-|)?structur(e|es|ed|ing)|separat(e|e s|ed|ing)|split(s|ing)?|subsitut(e|es|ed|ing)|tid(y|ying|ied)|short(:?en|er|ing|s)?|polish(ed|es|ing)?|(get|got|getting) rid|encapsulate|hide(e|es|ed|ing)|un(-| )?hid(e|es|ed|ing)|parameteriz(e|es|ed|ing)|substitut(e|es|ed|ing)|unnecessary|unneeded|unused|(not|never|no longer) used|no longer needed|redundant|useless|duplicate(d)?|deprecated|obsolete(d)?|commented))((^|$|[^a-z\_])|(^|$|[^a-z\_])[\\s\\S]{0,50}(^|$|[^a-z\_]))(algorithm(s)?|assertion(s)?|assignment(s)?|class(es)?|code|collection(s)?|conditional(s)?|constant(s)?|constructor(s)?|control|delegate|delegation|design pattern(s)?|error(-| )?code(s)?|exception(s)?|field(s)?|flag(s)?|function(s)?|getter(s)?|guard clause(s)?|hierarch(y|ies)|implementation(s)?|inheritance|inline|interface(s)?|internal|macro(s)?|magic number(s)?|member(s)?|method(s)?|modifier(s)?|null object(s)?|object(s)?|parameter(s)?|patch(es)?|pointer(s)?|polymorphism|quer(y|ies)|reference(s)?|ref(s)?|return type|setter(s)?|static|structure(s)?|sub(-| )?class(es)?|super(-| )?class(es)?|(sub)?(-| )?system(s)?|template(s)?|type(s)?|uninline|variable(s)?|handler|plugin|unit(s)?|contravariant|covariant|action(s)?|queue(s)?|stack(s)?|driver(s)?|storage|tool(s)?|module(s)?|log(s)?|setting(s)?|fall( |-)back(s)?|memory|param(s)?|volatile|file(s)?|generic(s)?|initialization(s)?|public|protected|private|framework|singelton|declaration(s)?|init|destructor(s)?|instances(s)?|primitive(s)?|(helper|utility|auxiliary) function(s)?)(^|$|[^a-z\_])))|((^|^[\\s\\S]{0,25}(^|$|[^a-z\_]))(clean(ing|s|ed)?(-| )?up(s)?|cleaner|deprecat(e|es|ed|ing)|extract(ed|s|ing)?|re(-|)?organiz(e|es|ed|ing)|re(-|)?structur(e|es|ed|ing)|tid(y|ying|ied) up|improv(e|ed|es|ing|ement|ements)|re(-|)?organiz(e|es|ed|ing)|re(-|)?structur(e|es|ed|ing)|(helper|utility|auxiliary) function(s)?|(move|moved|moves|moving) to|separat(e|es|ed|ing)|split(s|ing)?|->)(^|$|[^a-z\_]))', '@'))-LENGTH(REGEXP\_REPLACE(lower(message),'((^|$|[^a-z\_])(clean(ing)?(-| )?up(s)?|call(s|ed|ing)?[\\s\\S]{1,50}instead|collaps(e|es|ed|ing)|consolidat(e|es|ed|ing)|decompos(e|es|ed|ing)|drop(ed|s|ing)?( back)|encapsulat(e|es|ed|ing)|gereneliz(e|es|ed|ing)|optimiz(e|es|ed|ing|ations)|pull(ed|s|ing)? (up|down)|re(-)?(write|wrote)|re(-| )?factor(ed|s|ing|ings)?|re(-)?implement(ed|s|ing)?|renam(e|es|ed|ing|ings)|better nam(e|es|ing)|re(-)?organiz(e|es|ed|ing)|re(-)?organization|re(-)?work(ed|s|ing|ings)?|reorg|simplif(y|es|ied|ying|ication)|suppress(es|ed|ing)? warning(s)?|unif(y|ies|ied|ing)|uninline|beef(ed|s|ing)? up|refactor(ing)?(s)?|code improvement(s)?|revis(e|es|ed|ing)|re(-)?construct(s|ed|ing)?|re(-)?(write|write|wrote|writing)|re(-)?cod(e|ed|es|ing)|factor(ed|s|ing)? out|re(-| )?packag(e|es|ed|ing))(^|$|[^a-z\_]))|((((^|$|[^a-z\_])(clean(ing|s|ed)?clean(ing)?(-| )?up(s)?|combin(e|es|ed|ing)|compos(e|es|ed|ing)|de(-| )?compos(e|es|ed|ing)|convert(ed|s|ing)?|dead|deprecat(e|es|ed|ing)|drop(ed|s|ing)?|duplicat(e|es|ed|ing)|extract(ed|s|ing)?|improv(e|es|ed|ing)|increas(e|es|ed|ing)|(make|makes|made|making)|mov(e|es|ed|ing)|rebuil(d|ds|ding|t)|replac(e|es|ed|ing)|redundant|re(-|)?organiz(e|es|ed|ing)|re(-|)?structur(e|es|ed|ing)|separat(e|e s|ed|ing)|split(s|ing)?|subsitut(e|es|ed|ing)|tid(y|ying|ied)|short(:?en|er|ing|s)?|polish(ed|es|ing)?|(get|got|getting) rid|encapsulate|hide(e|es|ed|ing)|un(-| )?hid(e|es|ed|ing)|parameteriz(e|es|ed|ing)|substitut(e|es|ed|ing)|unnecessary|unneeded|unused|(not|never|no longer) used|no longer needed|redundant|useless|duplicate(d)?|deprecated|obsolete(d)?|commented))((^|$|[^a-z\_])|(^|$|[^a-z\_])[\\s\\S]{0,50}(^|$|[^a-z\_]))(algorithm(s)?|assertion(s)?|assignment(s)?|class(es)?|code|collection(s)?|conditional(s)?|constant(s)?|constructor(s)?|control|delegate|delegation|design pattern(s)?|error(-| )?code(s)?|exception(s)?|field(s)?|flag(s)?|function(s)?|getter(s)?|guard clause(s)?|hierarch(y|ies)|implementation(s)?|inheritance|inline|interface(s)?|internal|macro(s)?|magic number(s)?|member(s)?|method(s)?|modifier(s)?|null object(s)?|object(s)?|parameter(s)?|patch(es)?|pointer(s)?|polymorphism|quer(y|ies)|reference(s)?|ref(s)?|return type|setter(s)?|static|structure(s)?|sub(-| )?class(es)?|super(-| )?class(es)?|(sub)?(-| )?system(s)?|template(s)?|type(s)?|uninline|variable(s)?|handler|plugin|unit(s)?|contravariant|covariant|action(s)?|queue(s)?|stack(s)?|driver(s)?|storage|tool(s)?|module(s)?|log(s)?|setting(s)?|fall( |-)back(s)?|memory|param(s)?|volatile|file(s)?|generic(s)?|initialization(s)?|public|protected|private|framework|singelton|declaration(s)?|init|destructor(s)?|instances(s)?|primitive(s)?|(helper|utility|auxiliary) function(s)?)(^|$|[^a-z\_])))|((^|^[\\s\\S]{0,25}(^|$|[^a-z\_]))(clean(ing|s|ed)?(-| )?up(s)?|cleaner|deprecat(e|es|ed|ing)|extract(ed|s|ing)?|re(-|)?organiz(e|es|ed|ing)|re(-|)?structur(e|es|ed|ing)|tid(y|ying|ied) up|improv(e|ed|es|ing|ement|ements)|re(-|)?organiz(e|es|ed|ing)|re(-|)?structur(e|es|ed|ing)|(helper|utility|auxiliary) function(s)?|(move|moved|moves|moving) to|separat(e|es|ed|ing)|split(s|ing)?|->)(^|$|[^a-z\_]))', '')))

# Refactor :build\_sepereted\_term(removal)

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(LENGTH(REGEXP\_REPLACE(lower(message),'(^|$|[^a-z\_])(add(s|ed|ing)?[\\s\\S]{1,50}helper(s)?|us(e|es|ed|ing)[\\s\\S]{1,50}instead|split(s|ing)?[\\s\\S]{1,50}into|break(s|ing)?[\\s\\S]{1,50}into|separat(e|e s|ed|ing)[\\s\\S]{1,50}into|replac(e|es|ed|ing)?[\\s\\S]{1,50}(unnecessary|unneeded|unused|(not|never|no longer) used|no longer needed|redundant|useless|duplicate(d)?|deprecated|obsolete(d)?|commented)|remov(e|es|ed|ing)[\\s\\S]{1,50}(unnecessary|unneeded|unused|(not|never|no longer) used|no longer needed|redundant|useless|duplicate(d)?|deprecated|obsolete(d)?|commented)|kill(s|ed|ing)?[\\s\\S]{1,50}(unnecessary|unneeded|unused|(not|never|no longer) used|no longer needed|redundant|useless|duplicate(d)?|deprecated|obsolete(d)?|commented)|drop(s|ed|ing)?[\\s\\S]{1,50}(unnecessary|unneeded|unused|(not|never|no longer) used|no longer needed|redundant|useless|duplicate(d)?|deprecated|obsolete(d)?|commented)|mov(e|es|ed|ing)?[\\s\\S]{1,50}(unnecessary|unneeded|unused|(not|never|no longer) used|no longer needed|redundant|useless|duplicate(d)?|deprecated|obsolete(d)?|commented))(^|$|[^a-z\_])', '@'))-LENGTH(REGEXP\_REPLACE(lower(message),'(^|$|[^a-z\_])(add(s|ed|ing)?[\\s\\S]{1,50}helper(s)?|us(e|es|ed|ing)[\\s\\S]{1,50}instead|split(s|ing)?[\\s\\S]{1,50}into|break(s|ing)?[\\s\\S]{1,50}into|separat(e|e s|ed|ing)[\\s\\S]{1,50}into|replac(e|es|ed|ing)?[\\s\\S]{1,50}(unnecessary|unneeded|unused|(not|never|no longer) used|no longer needed|redundant|useless|duplicate(d)?|deprecated|obsolete(d)?|commented)|remov(e|es|ed|ing)[\\s\\S]{1,50}(unnecessary|unneeded|unused|(not|never|no longer) used|no longer needed|redundant|useless|duplicate(d)?|deprecated|obsolete(d)?|commented)|kill(s|ed|ing)?[\\s\\S]{1,50}(unnecessary|unneeded|unused|(not|never|no longer) used|no longer needed|redundant|useless|duplicate(d)?|deprecated|obsolete(d)?|commented)|drop(s|ed|ing)?[\\s\\S]{1,50}(unnecessary|unneeded|unused|(not|never|no longer) used|no longer needed|redundant|useless|duplicate(d)?|deprecated|obsolete(d)?|commented)|mov(e|es|ed|ing)?[\\s\\S]{1,50}(unnecessary|unneeded|unused|(not|never|no longer) used|no longer needed|redundant|useless|duplicate(d)?|deprecated|obsolete(d)?|commented))(^|$|[^a-z\_])', '')))

# Refactor :build\_refactor\_goals\_regex()

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(LENGTH(REGEXP\_REPLACE(lower(message),'(((^|$|[^a-z\_])(better|improv(e|es|ed|ing)|increas(e|es|ed|ing)|reduc(e|es|ed|ing)|worse|make|more|less))((^|$|[^a-z\_])|(^|$|[^a-z\_])[\\s\\S]{0,50}(^|$|[^a-z\_]))(abstraction|coherence|cohesion|complexity|correctness|coupling|dependability|duplication|efficiency|extensibility|flexibility|maintainability|naming|performance|portability|quality|readability|reliability|re(-| )?use|re(-| )?usability|security|simplicity|testability|testable|re(-| )?usable|readable|portable|maintainable|flexible|efficient|encapsulation)(^|$|[^a-z\_]))', '@'))-LENGTH(REGEXP\_REPLACE(lower(message),'(((^|$|[^a-z\_])(better|improv(e|es|ed|ing)|increas(e|es|ed|ing)|reduc(e|es|ed|ing)|worse|make|more|less))((^|$|[^a-z\_])|(^|$|[^a-z\_])[\\s\\S]{0,50}(^|$|[^a-z\_]))(abstraction|coherence|cohesion|complexity|correctness|coupling|dependability|duplication|efficiency|extensibility|flexibility|maintainability|naming|performance|portability|quality|readability|reliability|re(-| )?use|re(-| )?usability|security|simplicity|testability|testable|re(-| )?usable|readable|portable|maintainable|flexible|efficient|encapsulation)(^|$|[^a-z\_]))', '')))

# Refactor :build\_non\_code\_perfective\_regex()

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(LENGTH(REGEXP\_REPLACE(lower(message),'(convert(ed|s|ing)?((^|$|[^a-z\_])|(^|$|[^a-z\_])[\\s\\S]{0,50}(^|$|[^a-z\_]))support(s|ed|ing)?|(make|made|making|makes)((^|$|[^a-z\_])|(^|$|[^a-z\_])[\\s\\S]{0,50}(^|$|[^a-z\_]))work|(make|made|making|makes)((^|$|[^a-z\_])|(^|$|[^a-z\_])[\\s\\S]{0,50}(^|$|[^a-z\_]))sense|improv(e|es|ed|ing) handling|((^|$|[^a-z\_])(warning(s)?|format(ting)?|indentation(s)?))((^|$|[^a-z\_])|(^|$|[^a-z\_])[\\s\\S]{0,50}(^|$|[^a-z\_]))(clean(-| )?up(s)?)|(^|^[\\s\\S]{0,25}(^|$|[^a-z\_]))(clean(ing|s|ed)?(-| )?up(s)?|cleaner|deprecat(e|es|ed|ing)|extract(ed|s|ing)?|re(-|)?organiz(e|es|ed|ing)|re(-|)?structur(e|es|ed|ing)|tid(y|ying|ied) up|improv(e|ed|es|ing|ement|ements)|re(-|)?organiz(e|es|ed|ing)|re(-|)?structur(e|es|ed|ing)|(helper|utility|auxiliary) function(s)?|(move|moved|moves|moving) to|separat(e|es|ed|ing)|split(s|ing)?|->)[\\s\\S]{0,25}((^|$|[^a-z\_])(change( |-)?log|comment(s)?|copy( |-)?right(s)?|doc(s)?|documentation|explanation(s)?|man( |-)?page(s)?|manual|note(s)?|readme(.md)?|translation(s)?|java( |-)?doc(s)?|java( |-)?documentation|example(s)?|diagram(s)?|guide(s)?|icon(s)?|doc( |-)?string(s)?|tutorials(s)?|help|man|doc( |-)?string(s)?|desc|copy( |-)?right(s)?|explanation(s)?)(^|$|[^a-z\_]))|(((^|$|[^a-z\_])(clean(ing|s|ed)?clean(ing)?(-| )?up(s)?|combin(e|es|ed|ing)|compos(e|es|ed|ing)|de(-| )?compos(e|es|ed|ing)|convert(ed|s|ing)?|dead|deprecat(e|es|ed|ing)|drop(ed|s|ing)?|duplicat(e|es|ed|ing)|extract(ed|s|ing)?|improv(e|es|ed|ing)|increas(e|es|ed|ing)|(make|makes|made|making)|mov(e|es|ed|ing)|rebuil(d|ds|ding|t)|replac(e|es|ed|ing)|redundant|re(-|)?organiz(e|es|ed|ing)|re(-|)?structur(e|es|ed|ing)|separat(e|e s|ed|ing)|split(s|ing)?|subsitut(e|es|ed|ing)|tid(y|ying|ied)|short(:?en|er|ing|s)?|polish(ed|es|ing)?|(get|got|getting) rid|encapsulate|hide(e|es|ed|ing)|un(-| )?hid(e|es|ed|ing)|parameteriz(e|es|ed|ing)|substitut(e|es|ed|ing)|unnecessary|unneeded|unused|(not|never|no longer) used|no longer needed|redundant|useless|duplicate(d)?|deprecated|obsolete(d)?|commented|fix(es|ed|ing)?|(get|got|getting) rid|support(s|ed|ing)?))(\\s|(^|$|[^a-z\_])[\\s\\S]{0,50}(^|$|[^a-z\_]))(change( |-)?log|comment(s)?|copy( |-)?right(s)?|doc(s)?|documentation|explanation(s)?|man( |-)?page(s)?|manual|note(s)?|readme(.md)?|translation(s)?|java( |-)?doc(s)?|java( |-)?documentation|example(s)?|diagram(s)?|guide(s)?|icon(s)?|doc( |-)?string(s)?|tutorials(s)?|help|man|doc( |-)?string(s)?|desc|copy( |-)?right(s)?|explanation(s)?|indentation(s)?|style|todo(s)?|typo(s)?|verbosity|warning(s)?|format(ting)?|indentation(s)?)))', '@'))-LENGTH(REGEXP\_REPLACE(lower(message),'(convert(ed|s|ing)?((^|$|[^a-z\_])|(^|$|[^a-z\_])[\\s\\S]{0,50}(^|$|[^a-z\_]))support(s|ed|ing)?|(make|made|making|makes)((^|$|[^a-z\_])|(^|$|[^a-z\_])[\\s\\S]{0,50}(^|$|[^a-z\_]))work|(make|made|making|makes)((^|$|[^a-z\_])|(^|$|[^a-z\_])[\\s\\S]{0,50}(^|$|[^a-z\_]))sense|improv(e|es|ed|ing) handling|((^|$|[^a-z\_])(warning(s)?|format(ting)?|indentation(s)?))((^|$|[^a-z\_])|(^|$|[^a-z\_])[\\s\\S]{0,50}(^|$|[^a-z\_]))(clean(-| )?up(s)?)|(^|^[\\s\\S]{0,25}(^|$|[^a-z\_]))(clean(ing|s|ed)?(-| )?up(s)?|cleaner|deprecat(e|es|ed|ing)|extract(ed|s|ing)?|re(-|)?organiz(e|es|ed|ing)|re(-|)?structur(e|es|ed|ing)|tid(y|ying|ied) up|improv(e|ed|es|ing|ement|ements)|re(-|)?organiz(e|es|ed|ing)|re(-|)?structur(e|es|ed|ing)|(helper|utility|auxiliary) function(s)?|(move|moved|moves|moving) to|separat(e|es|ed|ing)|split(s|ing)?|->)[\\s\\S]{0,25}((^|$|[^a-z\_])(change( |-)?log|comment(s)?|copy( |-)?right(s)?|doc(s)?|documentation|explanation(s)?|man( |-)?page(s)?|manual|note(s)?|readme(.md)?|translation(s)?|java( |-)?doc(s)?|java( |-)?documentation|example(s)?|diagram(s)?|guide(s)?|icon(s)?|doc( |-)?string(s)?|tutorials(s)?|help|man|doc( |-)?string(s)?|desc|copy( |-)?right(s)?|explanation(s)?)(^|$|[^a-z\_]))|(((^|$|[^a-z\_])(clean(ing|s|ed)?clean(ing)?(-| )?up(s)?|combin(e|es|ed|ing)|compos(e|es|ed|ing)|de(-| )?compos(e|es|ed|ing)|convert(ed|s|ing)?|dead|deprecat(e|es|ed|ing)|drop(ed|s|ing)?|duplicat(e|es|ed|ing)|extract(ed|s|ing)?|improv(e|es|ed|ing)|increas(e|es|ed|ing)|(make|makes|made|making)|mov(e|es|ed|ing)|rebuil(d|ds|ding|t)|replac(e|es|ed|ing)|redundant|re(-|)?organiz(e|es|ed|ing)|re(-|)?structur(e|es|ed|ing)|separat(e|e s|ed|ing)|split(s|ing)?|subsitut(e|es|ed|ing)|tid(y|ying|ied)|short(:?en|er|ing|s)?|polish(ed|es|ing)?|(get|got|getting) rid|encapsulate|hide(e|es|ed|ing)|un(-| )?hid(e|es|ed|ing)|parameteriz(e|es|ed|ing)|substitut(e|es|ed|ing)|unnecessary|unneeded|unused|(not|never|no longer) used|no longer needed|redundant|useless|duplicate(d)?|deprecated|obsolete(d)?|commented|fix(es|ed|ing)?|(get|got|getting) rid|support(s|ed|ing)?))(\\s|(^|$|[^a-z\_])[\\s\\S]{0,50}(^|$|[^a-z\_]))(change( |-)?log|comment(s)?|copy( |-)?right(s)?|doc(s)?|documentation|explanation(s)?|man( |-)?page(s)?|manual|note(s)?|readme(.md)?|translation(s)?|java( |-)?doc(s)?|java( |-)?documentation|example(s)?|diagram(s)?|guide(s)?|icon(s)?|doc( |-)?string(s)?|tutorials(s)?|help|man|doc( |-)?string(s)?|desc|copy( |-)?right(s)?|explanation(s)?|indentation(s)?|style|todo(s)?|typo(s)?|verbosity|warning(s)?|format(ting)?|indentation(s)?)))', '')))

# Refactor :build\_non\_positive\_linguistic(build\_refactor\_regex())

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(LENGTH(REGEXP\_REPLACE(lower(message),'(((^|$|[^a-z\_])(can|could|ha(ve|s|d)|may|might|must|need|ought|shall|should|will|would))[\\s\\S]{0,10}(((^|$|[^a-z\_])(clean(ing)?(-| )?up(s)?|call(s|ed|ing)?[\\s\\S]{1,50}instead|collaps(e|es|ed|ing)|consolidat(e|es|ed|ing)|decompos(e|es|ed|ing)|drop(ed|s|ing)?( back)|encapsulat(e|es|ed|ing)|gereneliz(e|es|ed|ing)|optimiz(e|es|ed|ing|ations)|pull(ed|s|ing)? (up|down)|re(-)?(write|wrote)|re(-| )?factor(ed|s|ing|ings)?|re(-)?implement(ed|s|ing)?|renam(e|es|ed|ing|ings)|better nam(e|es|ing)|re(-)?organiz(e|es|ed|ing)|re(-)?organization|re(-)?work(ed|s|ing|ings)?|reorg|simplif(y|es|ied|ying|ication)|suppress(es|ed|ing)? warning(s)?|unif(y|ies|ied|ing)|uninline|beef(ed|s|ing)? up|refactor(ing)?(s)?|code improvement(s)?|revis(e|es|ed|ing)|re(-)?construct(s|ed|ing)?|re(-)?(write|write|wrote|writing)|re(-)?cod(e|ed|es|ing)|factor(ed|s|ing)? out|re(-| )?packag(e|es|ed|ing))(^|$|[^a-z\_]))|((((^|$|[^a-z\_])(clean(ing|s|ed)?clean(ing)?(-| )?up(s)?|combin(e|es|ed|ing)|compos(e|es|ed|ing)|de(-| )?compos(e|es|ed|ing)|convert(ed|s|ing)?|dead|deprecat(e|es|ed|ing)|drop(ed|s|ing)?|duplicat(e|es|ed|ing)|extract(ed|s|ing)?|improv(e|es|ed|ing)|increas(e|es|ed|ing)|(make|makes|made|making)|mov(e|es|ed|ing)|rebuil(d|ds|ding|t)|replac(e|es|ed|ing)|redundant|re(-|)?organiz(e|es|ed|ing)|re(-|)?structur(e|es|ed|ing)|separat(e|e s|ed|ing)|split(s|ing)?|subsitut(e|es|ed|ing)|tid(y|ying|ied)|short(:?en|er|ing|s)?|polish(ed|es|ing)?|(get|got|getting) rid|encapsulate|hide(e|es|ed|ing)|un(-| )?hid(e|es|ed|ing)|parameteriz(e|es|ed|ing)|substitut(e|es|ed|ing)|unnecessary|unneeded|unused|(not|never|no longer) used|no longer needed|redundant|useless|duplicate(d)?|deprecated|obsolete(d)?|commented))((^|$|[^a-z\_])|(^|$|[^a-z\_])[\\s\\S]{0,50}(^|$|[^a-z\_]))(algorithm(s)?|assertion(s)?|assignment(s)?|class(es)?|code|collection(s)?|conditional(s)?|constant(s)?|constructor(s)?|control|delegate|delegation|design pattern(s)?|error(-| )?code(s)?|exception(s)?|field(s)?|flag(s)?|function(s)?|getter(s)?|guard clause(s)?|hierarch(y|ies)|implementation(s)?|inheritance|inline|interface(s)?|internal|macro(s)?|magic number(s)?|member(s)?|method(s)?|modifier(s)?|null object(s)?|object(s)?|parameter(s)?|patch(es)?|pointer(s)?|polymorphism|quer(y|ies)|reference(s)?|ref(s)?|return type|setter(s)?|static|structure(s)?|sub(-| )?class(es)?|super(-| )?class(es)?|(sub)?(-| )?system(s)?|template(s)?|type(s)?|uninline|variable(s)?|handler|plugin|unit(s)?|contravariant|covariant|action(s)?|queue(s)?|stack(s)?|driver(s)?|storage|tool(s)?|module(s)?|log(s)?|setting(s)?|fall( |-)back(s)?|memory|param(s)?|volatile|file(s)?|generic(s)?|initialization(s)?|public|protected|private|framework|singelton|declaration(s)?|init|destructor(s)?|instances(s)?|primitive(s)?|(helper|utility|auxiliary) function(s)?)(^|$|[^a-z\_])))|((^|^[\\s\\S]{0,25}(^|$|[^a-z\_]))(clean(ing|s|ed)?(-| )?up(s)?|cleaner|deprecat(e|es|ed|ing)|extract(ed|s|ing)?|re(-|)?organiz(e|es|ed|ing)|re(-|)?structur(e|es|ed|ing)|tid(y|ying|ied) up|improv(e|ed|es|ing|ement|ements)|re(-|)?organiz(e|es|ed|ing)|re(-|)?structur(e|es|ed|ing)|(helper|utility|auxiliary) function(s)?|(move|moved|moves|moving) to|separat(e|es|ed|ing)|split(s|ing)?|->)(^|$|[^a-z\_])))|((^|$|[^a-z\_])(aren\'t|didn\'t|don\'t|doesn\'t|isn\'t|lack|n\'t|never|no|nobody|none|not|nothing|weren\'t|without|won\'t))[\\s\\S]{0,10}(((^|$|[^a-z\_])(clean(ing)?(-| )?up(s)?|call(s|ed|ing)?[\\s\\S]{1,50}instead|collaps(e|es|ed|ing)|consolidat(e|es|ed|ing)|decompos(e|es|ed|ing)|drop(ed|s|ing)?( back)|encapsulat(e|es|ed|ing)|gereneliz(e|es|ed|ing)|optimiz(e|es|ed|ing|ations)|pull(ed|s|ing)? (up|down)|re(-)?(write|wrote)|re(-| )?factor(ed|s|ing|ings)?|re(-)?implement(ed|s|ing)?|renam(e|es|ed|ing|ings)|better nam(e|es|ing)|re(-)?organiz(e|es|ed|ing)|re(-)?organization|re(-)?work(ed|s|ing|ings)?|reorg|simplif(y|es|ied|ying|ication)|suppress(es|ed|ing)? warning(s)?|unif(y|ies|ied|ing)|uninline|beef(ed|s|ing)? up|refactor(ing)?(s)?|code improvement(s)?|revis(e|es|ed|ing)|re(-)?construct(s|ed|ing)?|re(-)?(write|write|wrote|writing)|re(-)?cod(e|ed|es|ing)|factor(ed|s|ing)? out|re(-| )?packag(e|es|ed|ing))(^|$|[^a-z\_]))|((((^|$|[^a-z\_])(clean(ing|s|ed)?clean(ing)?(-| )?up(s)?|combin(e|es|ed|ing)|compos(e|es|ed|ing)|de(-| )?compos(e|es|ed|ing)|convert(ed|s|ing)?|dead|deprecat(e|es|ed|ing)|drop(ed|s|ing)?|duplicat(e|es|ed|ing)|extract(ed|s|ing)?|improv(e|es|ed|ing)|increas(e|es|ed|ing)|(make|makes|made|making)|mov(e|es|ed|ing)|rebuil(d|ds|ding|t)|replac(e|es|ed|ing)|redundant|re(-|)?organiz(e|es|ed|ing)|re(-|)?structur(e|es|ed|ing)|separat(e|e s|ed|ing)|split(s|ing)?|subsitut(e|es|ed|ing)|tid(y|ying|ied)|short(:?en|er|ing|s)?|polish(ed|es|ing)?|(get|got|getting) rid|encapsulate|hide(e|es|ed|ing)|un(-| )?hid(e|es|ed|ing)|parameteriz(e|es|ed|ing)|substitut(e|es|ed|ing)|unnecessary|unneeded|unused|(not|never|no longer) used|no longer needed|redundant|useless|duplicate(d)?|deprecated|obsolete(d)?|commented))((^|$|[^a-z\_])|(^|$|[^a-z\_])[\\s\\S]{0,50}(^|$|[^a-z\_]))(algorithm(s)?|assertion(s)?|assignment(s)?|class(es)?|code|collection(s)?|conditional(s)?|constant(s)?|constructor(s)?|control|delegate|delegation|design pattern(s)?|error(-| )?code(s)?|exception(s)?|field(s)?|flag(s)?|function(s)?|getter(s)?|guard clause(s)?|hierarch(y|ies)|implementation(s)?|inheritance|inline|interface(s)?|internal|macro(s)?|magic number(s)?|member(s)?|method(s)?|modifier(s)?|null object(s)?|object(s)?|parameter(s)?|patch(es)?|pointer(s)?|polymorphism|quer(y|ies)|reference(s)?|ref(s)?|return type|setter(s)?|static|structure(s)?|sub(-| )?class(es)?|super(-| )?class(es)?|(sub)?(-| )?system(s)?|template(s)?|type(s)?|uninline|variable(s)?|handler|plugin|unit(s)?|contravariant|covariant|action(s)?|queue(s)?|stack(s)?|driver(s)?|storage|tool(s)?|module(s)?|log(s)?|setting(s)?|fall( |-)back(s)?|memory|param(s)?|volatile|file(s)?|generic(s)?|initialization(s)?|public|protected|private|framework|singelton|declaration(s)?|init|destructor(s)?|instances(s)?|primitive(s)?|(helper|utility|auxiliary) function(s)?)(^|$|[^a-z\_])))|((^|^[\\s\\S]{0,25}(^|$|[^a-z\_]))(clean(ing|s|ed)?(-| )?up(s)?|cleaner|deprecat(e|es|ed|ing)|extract(ed|s|ing)?|re(-|)?organiz(e|es|ed|ing)|re(-|)?structur(e|es|ed|ing)|tid(y|ying|ied) up|improv(e|ed|es|ing|ement|ements)|re(-|)?organiz(e|es|ed|ing)|re(-|)?structur(e|es|ed|ing)|(helper|utility|auxiliary) function(s)?|(move|moved|moves|moving) to|separat(e|es|ed|ing)|split(s|ing)?|->)(^|$|[^a-z\_])))|((^|$|[^a-z\_])(for(get|gets|got|geting)|allow(s|ed|ing)?))[\\s\\S]{0,10}(((^|$|[^a-z\_])(clean(ing)?(-| )?up(s)?|call(s|ed|ing)?[\\s\\S]{1,50}instead|collaps(e|es|ed|ing)|consolidat(e|es|ed|ing)|decompos(e|es|ed|ing)|drop(ed|s|ing)?( back)|encapsulat(e|es|ed|ing)|gereneliz(e|es|ed|ing)|optimiz(e|es|ed|ing|ations)|pull(ed|s|ing)? (up|down)|re(-)?(write|wrote)|re(-| )?factor(ed|s|ing|ings)?|re(-)?implement(ed|s|ing)?|renam(e|es|ed|ing|ings)|better nam(e|es|ing)|re(-)?organiz(e|es|ed|ing)|re(-)?organization|re(-)?work(ed|s|ing|ings)?|reorg|simplif(y|es|ied|ying|ication)|suppress(es|ed|ing)? warning(s)?|unif(y|ies|ied|ing)|uninline|beef(ed|s|ing)? up|refactor(ing)?(s)?|code improvement(s)?|revis(e|es|ed|ing)|re(-)?construct(s|ed|ing)?|re(-)?(write|write|wrote|writing)|re(-)?cod(e|ed|es|ing)|factor(ed|s|ing)? out|re(-| )?packag(e|es|ed|ing))(^|$|[^a-z\_]))|((((^|$|[^a-z\_])(clean(ing|s|ed)?clean(ing)?(-| )?up(s)?|combin(e|es|ed|ing)|compos(e|es|ed|ing)|de(-| )?compos(e|es|ed|ing)|convert(ed|s|ing)?|dead|deprecat(e|es|ed|ing)|drop(ed|s|ing)?|duplicat(e|es|ed|ing)|extract(ed|s|ing)?|improv(e|es|ed|ing)|increas(e|es|ed|ing)|(make|makes|made|making)|mov(e|es|ed|ing)|rebuil(d|ds|ding|t)|replac(e|es|ed|ing)|redundant|re(-|)?organiz(e|es|ed|ing)|re(-|)?structur(e|es|ed|ing)|separat(e|e s|ed|ing)|split(s|ing)?|subsitut(e|es|ed|ing)|tid(y|ying|ied)|short(:?en|er|ing|s)?|polish(ed|es|ing)?|(get|got|getting) rid|encapsulate|hide(e|es|ed|ing)|un(-| )?hid(e|es|ed|ing)|parameteriz(e|es|ed|ing)|substitut(e|es|ed|ing)|unnecessary|unneeded|unused|(not|never|no longer) used|no longer needed|redundant|useless|duplicate(d)?|deprecated|obsolete(d)?|commented))((^|$|[^a-z\_])|(^|$|[^a-z\_])[\\s\\S]{0,50}(^|$|[^a-z\_]))(algorithm(s)?|assertion(s)?|assignment(s)?|class(es)?|code|collection(s)?|conditional(s)?|constant(s)?|constructor(s)?|control|delegate|delegation|design pattern(s)?|error(-| )?code(s)?|exception(s)?|field(s)?|flag(s)?|function(s)?|getter(s)?|guard clause(s)?|hierarch(y|ies)|implementation(s)?|inheritance|inline|interface(s)?|internal|macro(s)?|magic number(s)?|member(s)?|method(s)?|modifier(s)?|null object(s)?|object(s)?|parameter(s)?|patch(es)?|pointer(s)?|polymorphism|quer(y|ies)|reference(s)?|ref(s)?|return type|setter(s)?|static|structure(s)?|sub(-| )?class(es)?|super(-| )?class(es)?|(sub)?(-| )?system(s)?|template(s)?|type(s)?|uninline|variable(s)?|handler|plugin|unit(s)?|contravariant|covariant|action(s)?|queue(s)?|stack(s)?|driver(s)?|storage|tool(s)?|module(s)?|log(s)?|setting(s)?|fall( |-)back(s)?|memory|param(s)?|volatile|file(s)?|generic(s)?|initialization(s)?|public|protected|private|framework|singelton|declaration(s)?|init|destructor(s)?|instances(s)?|primitive(s)?|(helper|utility|auxiliary) function(s)?)(^|$|[^a-z\_])))|((^|^[\\s\\S]{0,25}(^|$|[^a-z\_]))(clean(ing|s|ed)?(-| )?up(s)?|cleaner|deprecat(e|es|ed|ing)|extract(ed|s|ing)?|re(-|)?organiz(e|es|ed|ing)|re(-|)?structur(e|es|ed|ing)|tid(y|ying|ied) up|improv(e|ed|es|ing|ement|ements)|re(-|)?organiz(e|es|ed|ing)|re(-|)?structur(e|es|ed|ing)|(helper|utility|auxiliary) function(s)?|(move|moved|moves|moving) to|separat(e|es|ed|ing)|split(s|ing)?|->)(^|$|[^a-z\_])))|((^|$|[^a-z\_])(change( |-)?log|comment(s)?|copy( |-)?right(s)?|doc(s)?|documentation|explanation(s)?|man( |-)?page(s)?|manual|note(s)?|readme(.md)?|translation(s)?|java( |-)?doc(s)?|java( |-)?documentation|example(s)?|diagram(s)?|guide(s)?|icon(s)?|doc( |-)?string(s)?|tutorials(s)?|help|man|doc( |-)?string(s)?|desc|copy( |-)?right(s)?|explanation(s)?))[\\s\\S]{0,10}(((^|$|[^a-z\_])(clean(ing)?(-| )?up(s)?|call(s|ed|ing)?[\\s\\S]{1,50}instead|collaps(e|es|ed|ing)|consolidat(e|es|ed|ing)|decompos(e|es|ed|ing)|drop(ed|s|ing)?( back)|encapsulat(e|es|ed|ing)|gereneliz(e|es|ed|ing)|optimiz(e|es|ed|ing|ations)|pull(ed|s|ing)? (up|down)|re(-)?(write|wrote)|re(-| )?factor(ed|s|ing|ings)?|re(-)?implement(ed|s|ing)?|renam(e|es|ed|ing|ings)|better nam(e|es|ing)|re(-)?organiz(e|es|ed|ing)|re(-)?organization|re(-)?work(ed|s|ing|ings)?|reorg|simplif(y|es|ied|ying|ication)|suppress(es|ed|ing)? warning(s)?|unif(y|ies|ied|ing)|uninline|beef(ed|s|ing)? up|refactor(ing)?(s)?|code improvement(s)?|revis(e|es|ed|ing)|re(-)?construct(s|ed|ing)?|re(-)?(write|write|wrote|writing)|re(-)?cod(e|ed|es|ing)|factor(ed|s|ing)? out|re(-| )?packag(e|es|ed|ing))(^|$|[^a-z\_]))|((((^|$|[^a-z\_])(clean(ing|s|ed)?clean(ing)?(-| )?up(s)?|combin(e|es|ed|ing)|compos(e|es|ed|ing)|de(-| )?compos(e|es|ed|ing)|convert(ed|s|ing)?|dead|deprecat(e|es|ed|ing)|drop(ed|s|ing)?|duplicat(e|es|ed|ing)|extract(ed|s|ing)?|improv(e|es|ed|ing)|increas(e|es|ed|ing)|(make|makes|made|making)|mov(e|es|ed|ing)|rebuil(d|ds|ding|t)|replac(e|es|ed|ing)|redundant|re(-|)?organiz(e|es|ed|ing)|re(-|)?structur(e|es|ed|ing)|separat(e|e s|ed|ing)|split(s|ing)?|subsitut(e|es|ed|ing)|tid(y|ying|ied)|short(:?en|er|ing|s)?|polish(ed|es|ing)?|(get|got|getting) rid|encapsulate|hide(e|es|ed|ing)|un(-| )?hid(e|es|ed|ing)|parameteriz(e|es|ed|ing)|substitut(e|es|ed|ing)|unnecessary|unneeded|unused|(not|never|no longer) used|no longer needed|redundant|useless|duplicate(d)?|deprecated|obsolete(d)?|commented))((^|$|[^a-z\_])|(^|$|[^a-z\_])[\\s\\S]{0,50}(^|$|[^a-z\_]))(algorithm(s)?|assertion(s)?|assignment(s)?|class(es)?|code|collection(s)?|conditional(s)?|constant(s)?|constructor(s)?|control|delegate|delegation|design pattern(s)?|error(-| )?code(s)?|exception(s)?|field(s)?|flag(s)?|function(s)?|getter(s)?|guard clause(s)?|hierarch(y|ies)|implementation(s)?|inheritance|inline|interface(s)?|internal|macro(s)?|magic number(s)?|member(s)?|method(s)?|modifier(s)?|null object(s)?|object(s)?|parameter(s)?|patch(es)?|pointer(s)?|polymorphism|quer(y|ies)|reference(s)?|ref(s)?|return type|setter(s)?|static|structure(s)?|sub(-| )?class(es)?|super(-| )?class(es)?|(sub)?(-| )?system(s)?|template(s)?|type(s)?|uninline|variable(s)?|handler|plugin|unit(s)?|contravariant|covariant|action(s)?|queue(s)?|stack(s)?|driver(s)?|storage|tool(s)?|module(s)?|log(s)?|setting(s)?|fall( |-)back(s)?|memory|param(s)?|volatile|file(s)?|generic(s)?|initialization(s)?|public|protected|private|framework|singelton|declaration(s)?|init|destructor(s)?|instances(s)?|primitive(s)?|(helper|utility|auxiliary) function(s)?)(^|$|[^a-z\_])))|((^|^[\\s\\S]{0,25}(^|$|[^a-z\_]))(clean(ing|s|ed)?(-| )?up(s)?|cleaner|deprecat(e|es|ed|ing)|extract(ed|s|ing)?|re(-|)?organiz(e|es|ed|ing)|re(-|)?structur(e|es|ed|ing)|tid(y|ying|ied) up|improv(e|ed|es|ing|ement|ements)|re(-|)?organiz(e|es|ed|ing)|re(-|)?structur(e|es|ed|ing)|(helper|utility|auxiliary) function(s)?|(move|moved|moves|moving) to|separat(e|es|ed|ing)|split(s|ing)?|->)(^|$|[^a-z\_]))))', '@'))-LENGTH(REGEXP\_REPLACE(lower(message),'(((^|$|[^a-z\_])(can|could|ha(ve|s|d)|may|might|must|need|ought|shall|should|will|would))[\\s\\S]{0,10}(((^|$|[^a-z\_])(clean(ing)?(-| )?up(s)?|call(s|ed|ing)?[\\s\\S]{1,50}instead|collaps(e|es|ed|ing)|consolidat(e|es|ed|ing)|decompos(e|es|ed|ing)|drop(ed|s|ing)?( back)|encapsulat(e|es|ed|ing)|gereneliz(e|es|ed|ing)|optimiz(e|es|ed|ing|ations)|pull(ed|s|ing)? (up|down)|re(-)?(write|wrote)|re(-| )?factor(ed|s|ing|ings)?|re(-)?implement(ed|s|ing)?|renam(e|es|ed|ing|ings)|better nam(e|es|ing)|re(-)?organiz(e|es|ed|ing)|re(-)?organization|re(-)?work(ed|s|ing|ings)?|reorg|simplif(y|es|ied|ying|ication)|suppress(es|ed|ing)? warning(s)?|unif(y|ies|ied|ing)|uninline|beef(ed|s|ing)? up|refactor(ing)?(s)?|code improvement(s)?|revis(e|es|ed|ing)|re(-)?construct(s|ed|ing)?|re(-)?(write|write|wrote|writing)|re(-)?cod(e|ed|es|ing)|factor(ed|s|ing)? out|re(-| )?packag(e|es|ed|ing))(^|$|[^a-z\_]))|((((^|$|[^a-z\_])(clean(ing|s|ed)?clean(ing)?(-| )?up(s)?|combin(e|es|ed|ing)|compos(e|es|ed|ing)|de(-| )?compos(e|es|ed|ing)|convert(ed|s|ing)?|dead|deprecat(e|es|ed|ing)|drop(ed|s|ing)?|duplicat(e|es|ed|ing)|extract(ed|s|ing)?|improv(e|es|ed|ing)|increas(e|es|ed|ing)|(make|makes|made|making)|mov(e|es|ed|ing)|rebuil(d|ds|ding|t)|replac(e|es|ed|ing)|redundant|re(-|)?organiz(e|es|ed|ing)|re(-|)?structur(e|es|ed|ing)|separat(e|e s|ed|ing)|split(s|ing)?|subsitut(e|es|ed|ing)|tid(y|ying|ied)|short(:?en|er|ing|s)?|polish(ed|es|ing)?|(get|got|getting) rid|encapsulate|hide(e|es|ed|ing)|un(-| )?hid(e|es|ed|ing)|parameteriz(e|es|ed|ing)|substitut(e|es|ed|ing)|unnecessary|unneeded|unused|(not|never|no longer) used|no longer needed|redundant|useless|duplicate(d)?|deprecated|obsolete(d)?|commented))((^|$|[^a-z\_])|(^|$|[^a-z\_])[\\s\\S]{0,50}(^|$|[^a-z\_]))(algorithm(s)?|assertion(s)?|assignment(s)?|class(es)?|code|collection(s)?|conditional(s)?|constant(s)?|constructor(s)?|control|delegate|delegation|design pattern(s)?|error(-| )?code(s)?|exception(s)?|field(s)?|flag(s)?|function(s)?|getter(s)?|guard clause(s)?|hierarch(y|ies)|implementation(s)?|inheritance|inline|interface(s)?|internal|macro(s)?|magic number(s)?|member(s)?|method(s)?|modifier(s)?|null object(s)?|object(s)?|parameter(s)?|patch(es)?|pointer(s)?|polymorphism|quer(y|ies)|reference(s)?|ref(s)?|return type|setter(s)?|static|structure(s)?|sub(-| )?class(es)?|super(-| )?class(es)?|(sub)?(-| )?system(s)?|template(s)?|type(s)?|uninline|variable(s)?|handler|plugin|unit(s)?|contravariant|covariant|action(s)?|queue(s)?|stack(s)?|driver(s)?|storage|tool(s)?|module(s)?|log(s)?|setting(s)?|fall( |-)back(s)?|memory|param(s)?|volatile|file(s)?|generic(s)?|initialization(s)?|public|protected|private|framework|singelton|declaration(s)?|init|destructor(s)?|instances(s)?|primitive(s)?|(helper|utility|auxiliary) function(s)?)(^|$|[^a-z\_])))|((^|^[\\s\\S]{0,25}(^|$|[^a-z\_]))(clean(ing|s|ed)?(-| )?up(s)?|cleaner|deprecat(e|es|ed|ing)|extract(ed|s|ing)?|re(-|)?organiz(e|es|ed|ing)|re(-|)?structur(e|es|ed|ing)|tid(y|ying|ied) up|improv(e|ed|es|ing|ement|ements)|re(-|)?organiz(e|es|ed|ing)|re(-|)?structur(e|es|ed|ing)|(helper|utility|auxiliary) function(s)?|(move|moved|moves|moving) to|separat(e|es|ed|ing)|split(s|ing)?|->)(^|$|[^a-z\_])))|((^|$|[^a-z\_])(aren\'t|didn\'t|don\'t|doesn\'t|isn\'t|lack|n\'t|never|no|nobody|none|not|nothing|weren\'t|without|won\'t))[\\s\\S]{0,10}(((^|$|[^a-z\_])(clean(ing)?(-| )?up(s)?|call(s|ed|ing)?[\\s\\S]{1,50}instead|collaps(e|es|ed|ing)|consolidat(e|es|ed|ing)|decompos(e|es|ed|ing)|drop(ed|s|ing)?( back)|encapsulat(e|es|ed|ing)|gereneliz(e|es|ed|ing)|optimiz(e|es|ed|ing|ations)|pull(ed|s|ing)? (up|down)|re(-)?(write|wrote)|re(-| )?factor(ed|s|ing|ings)?|re(-)?implement(ed|s|ing)?|renam(e|es|ed|ing|ings)|better nam(e|es|ing)|re(-)?organiz(e|es|ed|ing)|re(-)?organization|re(-)?work(ed|s|ing|ings)?|reorg|simplif(y|es|ied|ying|ication)|suppress(es|ed|ing)? warning(s)?|unif(y|ies|ied|ing)|uninline|beef(ed|s|ing)? up|refactor(ing)?(s)?|code improvement(s)?|revis(e|es|ed|ing)|re(-)?construct(s|ed|ing)?|re(-)?(write|write|wrote|writing)|re(-)?cod(e|ed|es|ing)|factor(ed|s|ing)? out|re(-| )?packag(e|es|ed|ing))(^|$|[^a-z\_]))|((((^|$|[^a-z\_])(clean(ing|s|ed)?clean(ing)?(-| )?up(s)?|combin(e|es|ed|ing)|compos(e|es|ed|ing)|de(-| )?compos(e|es|ed|ing)|convert(ed|s|ing)?|dead|deprecat(e|es|ed|ing)|drop(ed|s|ing)?|duplicat(e|es|ed|ing)|extract(ed|s|ing)?|improv(e|es|ed|ing)|increas(e|es|ed|ing)|(make|makes|made|making)|mov(e|es|ed|ing)|rebuil(d|ds|ding|t)|replac(e|es|ed|ing)|redundant|re(-|)?organiz(e|es|ed|ing)|re(-|)?structur(e|es|ed|ing)|separat(e|e s|ed|ing)|split(s|ing)?|subsitut(e|es|ed|ing)|tid(y|ying|ied)|short(:?en|er|ing|s)?|polish(ed|es|ing)?|(get|got|getting) rid|encapsulate|hide(e|es|ed|ing)|un(-| )?hid(e|es|ed|ing)|parameteriz(e|es|ed|ing)|substitut(e|es|ed|ing)|unnecessary|unneeded|unused|(not|never|no longer) used|no longer needed|redundant|useless|duplicate(d)?|deprecated|obsolete(d)?|commented))((^|$|[^a-z\_])|(^|$|[^a-z\_])[\\s\\S]{0,50}(^|$|[^a-z\_]))(algorithm(s)?|assertion(s)?|assignment(s)?|class(es)?|code|collection(s)?|conditional(s)?|constant(s)?|constructor(s)?|control|delegate|delegation|design pattern(s)?|error(-| )?code(s)?|exception(s)?|field(s)?|flag(s)?|function(s)?|getter(s)?|guard clause(s)?|hierarch(y|ies)|implementation(s)?|inheritance|inline|interface(s)?|internal|macro(s)?|magic number(s)?|member(s)?|method(s)?|modifier(s)?|null object(s)?|object(s)?|parameter(s)?|patch(es)?|pointer(s)?|polymorphism|quer(y|ies)|reference(s)?|ref(s)?|return type|setter(s)?|static|structure(s)?|sub(-| )?class(es)?|super(-| )?class(es)?|(sub)?(-| )?system(s)?|template(s)?|type(s)?|uninline|variable(s)?|handler|plugin|unit(s)?|contravariant|covariant|action(s)?|queue(s)?|stack(s)?|driver(s)?|storage|tool(s)?|module(s)?|log(s)?|setting(s)?|fall( |-)back(s)?|memory|param(s)?|volatile|file(s)?|generic(s)?|initialization(s)?|public|protected|private|framework|singelton|declaration(s)?|init|destructor(s)?|instances(s)?|primitive(s)?|(helper|utility|auxiliary) function(s)?)(^|$|[^a-z\_])))|((^|^[\\s\\S]{0,25}(^|$|[^a-z\_]))(clean(ing|s|ed)?(-| )?up(s)?|cleaner|deprecat(e|es|ed|ing)|extract(ed|s|ing)?|re(-|)?organiz(e|es|ed|ing)|re(-|)?structur(e|es|ed|ing)|tid(y|ying|ied) up|improv(e|ed|es|ing|ement|ements)|re(-|)?organiz(e|es|ed|ing)|re(-|)?structur(e|es|ed|ing)|(helper|utility|auxiliary) function(s)?|(move|moved|moves|moving) to|separat(e|es|ed|ing)|split(s|ing)?|->)(^|$|[^a-z\_])))|((^|$|[^a-z\_])(for(get|gets|got|geting)|allow(s|ed|ing)?))[\\s\\S]{0,10}(((^|$|[^a-z\_])(clean(ing)?(-| )?up(s)?|call(s|ed|ing)?[\\s\\S]{1,50}instead|collaps(e|es|ed|ing)|consolidat(e|es|ed|ing)|decompos(e|es|ed|ing)|drop(ed|s|ing)?( back)|encapsulat(e|es|ed|ing)|gereneliz(e|es|ed|ing)|optimiz(e|es|ed|ing|ations)|pull(ed|s|ing)? (up|down)|re(-)?(write|wrote)|re(-| )?factor(ed|s|ing|ings)?|re(-)?implement(ed|s|ing)?|renam(e|es|ed|ing|ings)|better nam(e|es|ing)|re(-)?organiz(e|es|ed|ing)|re(-)?organization|re(-)?work(ed|s|ing|ings)?|reorg|simplif(y|es|ied|ying|ication)|suppress(es|ed|ing)? warning(s)?|unif(y|ies|ied|ing)|uninline|beef(ed|s|ing)? up|refactor(ing)?(s)?|code improvement(s)?|revis(e|es|ed|ing)|re(-)?construct(s|ed|ing)?|re(-)?(write|write|wrote|writing)|re(-)?cod(e|ed|es|ing)|factor(ed|s|ing)? out|re(-| )?packag(e|es|ed|ing))(^|$|[^a-z\_]))|((((^|$|[^a-z\_])(clean(ing|s|ed)?clean(ing)?(-| )?up(s)?|combin(e|es|ed|ing)|compos(e|es|ed|ing)|de(-| )?compos(e|es|ed|ing)|convert(ed|s|ing)?|dead|deprecat(e|es|ed|ing)|drop(ed|s|ing)?|duplicat(e|es|ed|ing)|extract(ed|s|ing)?|improv(e|es|ed|ing)|increas(e|es|ed|ing)|(make|makes|made|making)|mov(e|es|ed|ing)|rebuil(d|ds|ding|t)|replac(e|es|ed|ing)|redundant|re(-|)?organiz(e|es|ed|ing)|re(-|)?structur(e|es|ed|ing)|separat(e|e s|ed|ing)|split(s|ing)?|subsitut(e|es|ed|ing)|tid(y|ying|ied)|short(:?en|er|ing|s)?|polish(ed|es|ing)?|(get|got|getting) rid|encapsulate|hide(e|es|ed|ing)|un(-| )?hid(e|es|ed|ing)|parameteriz(e|es|ed|ing)|substitut(e|es|ed|ing)|unnecessary|unneeded|unused|(not|never|no longer) used|no longer needed|redundant|useless|duplicate(d)?|deprecated|obsolete(d)?|commented))((^|$|[^a-z\_])|(^|$|[^a-z\_])[\\s\\S]{0,50}(^|$|[^a-z\_]))(algorithm(s)?|assertion(s)?|assignment(s)?|class(es)?|code|collection(s)?|conditional(s)?|constant(s)?|constructor(s)?|control|delegate|delegation|design pattern(s)?|error(-| )?code(s)?|exception(s)?|field(s)?|flag(s)?|function(s)?|getter(s)?|guard clause(s)?|hierarch(y|ies)|implementation(s)?|inheritance|inline|interface(s)?|internal|macro(s)?|magic number(s)?|member(s)?|method(s)?|modifier(s)?|null object(s)?|object(s)?|parameter(s)?|patch(es)?|pointer(s)?|polymorphism|quer(y|ies)|reference(s)?|ref(s)?|return type|setter(s)?|static|structure(s)?|sub(-| )?class(es)?|super(-| )?class(es)?|(sub)?(-| )?system(s)?|template(s)?|type(s)?|uninline|variable(s)?|handler|plugin|unit(s)?|contravariant|covariant|action(s)?|queue(s)?|stack(s)?|driver(s)?|storage|tool(s)?|module(s)?|log(s)?|setting(s)?|fall( |-)back(s)?|memory|param(s)?|volatile|file(s)?|generic(s)?|initialization(s)?|public|protected|private|framework|singelton|declaration(s)?|init|destructor(s)?|instances(s)?|primitive(s)?|(helper|utility|auxiliary) function(s)?)(^|$|[^a-z\_])))|((^|^[\\s\\S]{0,25}(^|$|[^a-z\_]))(clean(ing|s|ed)?(-| )?up(s)?|cleaner|deprecat(e|es|ed|ing)|extract(ed|s|ing)?|re(-|)?organiz(e|es|ed|ing)|re(-|)?structur(e|es|ed|ing)|tid(y|ying|ied) up|improv(e|ed|es|ing|ement|ements)|re(-|)?organiz(e|es|ed|ing)|re(-|)?structur(e|es|ed|ing)|(helper|utility|auxiliary) function(s)?|(move|moved|moves|moving) to|separat(e|es|ed|ing)|split(s|ing)?|->)(^|$|[^a-z\_])))|((^|$|[^a-z\_])(change( |-)?log|comment(s)?|copy( |-)?right(s)?|doc(s)?|documentation|explanation(s)?|man( |-)?page(s)?|manual|note(s)?|readme(.md)?|translation(s)?|java( |-)?doc(s)?|java( |-)?documentation|example(s)?|diagram(s)?|guide(s)?|icon(s)?|doc( |-)?string(s)?|tutorials(s)?|help|man|doc( |-)?string(s)?|desc|copy( |-)?right(s)?|explanation(s)?))[\\s\\S]{0,10}(((^|$|[^a-z\_])(clean(ing)?(-| )?up(s)?|call(s|ed|ing)?[\\s\\S]{1,50}instead|collaps(e|es|ed|ing)|consolidat(e|es|ed|ing)|decompos(e|es|ed|ing)|drop(ed|s|ing)?( back)|encapsulat(e|es|ed|ing)|gereneliz(e|es|ed|ing)|optimiz(e|es|ed|ing|ations)|pull(ed|s|ing)? (up|down)|re(-)?(write|wrote)|re(-| )?factor(ed|s|ing|ings)?|re(-)?implement(ed|s|ing)?|renam(e|es|ed|ing|ings)|better nam(e|es|ing)|re(-)?organiz(e|es|ed|ing)|re(-)?organization|re(-)?work(ed|s|ing|ings)?|reorg|simplif(y|es|ied|ying|ication)|suppress(es|ed|ing)? warning(s)?|unif(y|ies|ied|ing)|uninline|beef(ed|s|ing)? up|refactor(ing)?(s)?|code improvement(s)?|revis(e|es|ed|ing)|re(-)?construct(s|ed|ing)?|re(-)?(write|write|wrote|writing)|re(-)?cod(e|ed|es|ing)|factor(ed|s|ing)? out|re(-| )?packag(e|es|ed|ing))(^|$|[^a-z\_]))|((((^|$|[^a-z\_])(clean(ing|s|ed)?clean(ing)?(-| )?up(s)?|combin(e|es|ed|ing)|compos(e|es|ed|ing)|de(-| )?compos(e|es|ed|ing)|convert(ed|s|ing)?|dead|deprecat(e|es|ed|ing)|drop(ed|s|ing)?|duplicat(e|es|ed|ing)|extract(ed|s|ing)?|improv(e|es|ed|ing)|increas(e|es|ed|ing)|(make|makes|made|making)|mov(e|es|ed|ing)|rebuil(d|ds|ding|t)|replac(e|es|ed|ing)|redundant|re(-|)?organiz(e|es|ed|ing)|re(-|)?structur(e|es|ed|ing)|separat(e|e s|ed|ing)|split(s|ing)?|subsitut(e|es|ed|ing)|tid(y|ying|ied)|short(:?en|er|ing|s)?|polish(ed|es|ing)?|(get|got|getting) rid|encapsulate|hide(e|es|ed|ing)|un(-| )?hid(e|es|ed|ing)|parameteriz(e|es|ed|ing)|substitut(e|es|ed|ing)|unnecessary|unneeded|unused|(not|never|no longer) used|no longer needed|redundant|useless|duplicate(d)?|deprecated|obsolete(d)?|commented))((^|$|[^a-z\_])|(^|$|[^a-z\_])[\\s\\S]{0,50}(^|$|[^a-z\_]))(algorithm(s)?|assertion(s)?|assignment(s)?|class(es)?|code|collection(s)?|conditional(s)?|constant(s)?|constructor(s)?|control|delegate|delegation|design pattern(s)?|error(-| )?code(s)?|exception(s)?|field(s)?|flag(s)?|function(s)?|getter(s)?|guard clause(s)?|hierarch(y|ies)|implementation(s)?|inheritance|inline|interface(s)?|internal|macro(s)?|magic number(s)?|member(s)?|method(s)?|modifier(s)?|null object(s)?|object(s)?|parameter(s)?|patch(es)?|pointer(s)?|polymorphism|quer(y|ies)|reference(s)?|ref(s)?|return type|setter(s)?|static|structure(s)?|sub(-| )?class(es)?|super(-| )?class(es)?|(sub)?(-| )?system(s)?|template(s)?|type(s)?|uninline|variable(s)?|handler|plugin|unit(s)?|contravariant|covariant|action(s)?|queue(s)?|stack(s)?|driver(s)?|storage|tool(s)?|module(s)?|log(s)?|setting(s)?|fall( |-)back(s)?|memory|param(s)?|volatile|file(s)?|generic(s)?|initialization(s)?|public|protected|private|framework|singelton|declaration(s)?|init|destructor(s)?|instances(s)?|primitive(s)?|(helper|utility|auxiliary) function(s)?)(^|$|[^a-z\_])))|((^|^[\\s\\S]{0,25}(^|$|[^a-z\_]))(clean(ing|s|ed)?(-| )?up(s)?|cleaner|deprecat(e|es|ed|ing)|extract(ed|s|ing)?|re(-|)?organiz(e|es|ed|ing)|re(-|)?structur(e|es|ed|ing)|tid(y|ying|ied) up|improv(e|ed|es|ing|ement|ements)|re(-|)?organiz(e|es|ed|ing)|re(-|)?structur(e|es|ed|ing)|(helper|utility|auxiliary) function(s)?|(move|moved|moves|moving) to|separat(e|es|ed|ing)|split(s|ing)?|->)(^|$|[^a-z\_]))))', '')))

# Refactor :build\_non\_positive\_linguistic(build\_sepereted\_term(removal))

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(LENGTH(REGEXP\_REPLACE(lower(message),'(((^|$|[^a-z\_])(can|could|ha(ve|s|d)|may|might|must|need|ought|shall|should|will|would))[\\s\\S]{0,10}((^|$|[^a-z\_])(add(s|ed|ing)?[\\s\\S]{1,50}helper(s)?|us(e|es|ed|ing)[\\s\\S]{1,50}instead|split(s|ing)?[\\s\\S]{1,50}into|break(s|ing)?[\\s\\S]{1,50}into|separat(e|e s|ed|ing)[\\s\\S]{1,50}into|replac(e|es|ed|ing)?[\\s\\S]{1,50}(unnecessary|unneeded|unused|(not|never|no longer) used|no longer needed|redundant|useless|duplicate(d)?|deprecated|obsolete(d)?|commented)|remov(e|es|ed|ing)[\\s\\S]{1,50}(unnecessary|unneeded|unused|(not|never|no longer) used|no longer needed|redundant|useless|duplicate(d)?|deprecated|obsolete(d)?|commented)|kill(s|ed|ing)?[\\s\\S]{1,50}(unnecessary|unneeded|unused|(not|never|no longer) used|no longer needed|redundant|useless|duplicate(d)?|deprecated|obsolete(d)?|commented)|drop(s|ed|ing)?[\\s\\S]{1,50}(unnecessary|unneeded|unused|(not|never|no longer) used|no longer needed|redundant|useless|duplicate(d)?|deprecated|obsolete(d)?|commented)|mov(e|es|ed|ing)?[\\s\\S]{1,50}(unnecessary|unneeded|unused|(not|never|no longer) used|no longer needed|redundant|useless|duplicate(d)?|deprecated|obsolete(d)?|commented))(^|$|[^a-z\_]))|((^|$|[^a-z\_])(aren\'t|didn\'t|don\'t|doesn\'t|isn\'t|lack|n\'t|never|no|nobody|none|not|nothing|weren\'t|without|won\'t))[\\s\\S]{0,10}((^|$|[^a-z\_])(add(s|ed|ing)?[\\s\\S]{1,50}helper(s)?|us(e|es|ed|ing)[\\s\\S]{1,50}instead|split(s|ing)?[\\s\\S]{1,50}into|break(s|ing)?[\\s\\S]{1,50}into|separat(e|e s|ed|ing)[\\s\\S]{1,50}into|replac(e|es|ed|ing)?[\\s\\S]{1,50}(unnecessary|unneeded|unused|(not|never|no longer) used|no longer needed|redundant|useless|duplicate(d)?|deprecated|obsolete(d)?|commented)|remov(e|es|ed|ing)[\\s\\S]{1,50}(unnecessary|unneeded|unused|(not|never|no longer) used|no longer needed|redundant|useless|duplicate(d)?|deprecated|obsolete(d)?|commented)|kill(s|ed|ing)?[\\s\\S]{1,50}(unnecessary|unneeded|unused|(not|never|no longer) used|no longer needed|redundant|useless|duplicate(d)?|deprecated|obsolete(d)?|commented)|drop(s|ed|ing)?[\\s\\S]{1,50}(unnecessary|unneeded|unused|(not|never|no longer) used|no longer needed|redundant|useless|duplicate(d)?|deprecated|obsolete(d)?|commented)|mov(e|es|ed|ing)?[\\s\\S]{1,50}(unnecessary|unneeded|unused|(not|never|no longer) used|no longer needed|redundant|useless|duplicate(d)?|deprecated|obsolete(d)?|commented))(^|$|[^a-z\_]))|((^|$|[^a-z\_])(for(get|gets|got|geting)|allow(s|ed|ing)?))[\\s\\S]{0,10}((^|$|[^a-z\_])(add(s|ed|ing)?[\\s\\S]{1,50}helper(s)?|us(e|es|ed|ing)[\\s\\S]{1,50}instead|split(s|ing)?[\\s\\S]{1,50}into|break(s|ing)?[\\s\\S]{1,50}into|separat(e|e s|ed|ing)[\\s\\S]{1,50}into|replac(e|es|ed|ing)?[\\s\\S]{1,50}(unnecessary|unneeded|unused|(not|never|no longer) used|no longer needed|redundant|useless|duplicate(d)?|deprecated|obsolete(d)?|commented)|remov(e|es|ed|ing)[\\s\\S]{1,50}(unnecessary|unneeded|unused|(not|never|no longer) used|no longer needed|redundant|useless|duplicate(d)?|deprecated|obsolete(d)?|commented)|kill(s|ed|ing)?[\\s\\S]{1,50}(unnecessary|unneeded|unused|(not|never|no longer) used|no longer needed|redundant|useless|duplicate(d)?|deprecated|obsolete(d)?|commented)|drop(s|ed|ing)?[\\s\\S]{1,50}(unnecessary|unneeded|unused|(not|never|no longer) used|no longer needed|redundant|useless|duplicate(d)?|deprecated|obsolete(d)?|commented)|mov(e|es|ed|ing)?[\\s\\S]{1,50}(unnecessary|unneeded|unused|(not|never|no longer) used|no longer needed|redundant|useless|duplicate(d)?|deprecated|obsolete(d)?|commented))(^|$|[^a-z\_]))|((^|$|[^a-z\_])(change( |-)?log|comment(s)?|copy( |-)?right(s)?|doc(s)?|documentation|explanation(s)?|man( |-)?page(s)?|manual|note(s)?|readme(.md)?|translation(s)?|java( |-)?doc(s)?|java( |-)?documentation|example(s)?|diagram(s)?|guide(s)?|icon(s)?|doc( |-)?string(s)?|tutorials(s)?|help|man|doc( |-)?string(s)?|desc|copy( |-)?right(s)?|explanation(s)?))[\\s\\S]{0,10}((^|$|[^a-z\_])(add(s|ed|ing)?[\\s\\S]{1,50}helper(s)?|us(e|es|ed|ing)[\\s\\S]{1,50}instead|split(s|ing)?[\\s\\S]{1,50}into|break(s|ing)?[\\s\\S]{1,50}into|separat(e|e s|ed|ing)[\\s\\S]{1,50}into|replac(e|es|ed|ing)?[\\s\\S]{1,50}(unnecessary|unneeded|unused|(not|never|no longer) used|no longer needed|redundant|useless|duplicate(d)?|deprecated|obsolete(d)?|commented)|remov(e|es|ed|ing)[\\s\\S]{1,50}(unnecessary|unneeded|unused|(not|never|no longer) used|no longer needed|redundant|useless|duplicate(d)?|deprecated|obsolete(d)?|commented)|kill(s|ed|ing)?[\\s\\S]{1,50}(unnecessary|unneeded|unused|(not|never|no longer) used|no longer needed|redundant|useless|duplicate(d)?|deprecated|obsolete(d)?|commented)|drop(s|ed|ing)?[\\s\\S]{1,50}(unnecessary|unneeded|unused|(not|never|no longer) used|no longer needed|redundant|useless|duplicate(d)?|deprecated|obsolete(d)?|commented)|mov(e|es|ed|ing)?[\\s\\S]{1,50}(unnecessary|unneeded|unused|(not|never|no longer) used|no longer needed|redundant|useless|duplicate(d)?|deprecated|obsolete(d)?|commented))(^|$|[^a-z\_])))', '@'))-LENGTH(REGEXP\_REPLACE(lower(message),'(((^|$|[^a-z\_])(can|could|ha(ve|s|d)|may|might|must|need|ought|shall|should|will|would))[\\s\\S]{0,10}((^|$|[^a-z\_])(add(s|ed|ing)?[\\s\\S]{1,50}helper(s)?|us(e|es|ed|ing)[\\s\\S]{1,50}instead|split(s|ing)?[\\s\\S]{1,50}into|break(s|ing)?[\\s\\S]{1,50}into|separat(e|e s|ed|ing)[\\s\\S]{1,50}into|replac(e|es|ed|ing)?[\\s\\S]{1,50}(unnecessary|unneeded|unused|(not|never|no longer) used|no longer needed|redundant|useless|duplicate(d)?|deprecated|obsolete(d)?|commented)|remov(e|es|ed|ing)[\\s\\S]{1,50}(unnecessary|unneeded|unused|(not|never|no longer) used|no longer needed|redundant|useless|duplicate(d)?|deprecated|obsolete(d)?|commented)|kill(s|ed|ing)?[\\s\\S]{1,50}(unnecessary|unneeded|unused|(not|never|no longer) used|no longer needed|redundant|useless|duplicate(d)?|deprecated|obsolete(d)?|commented)|drop(s|ed|ing)?[\\s\\S]{1,50}(unnecessary|unneeded|unused|(not|never|no longer) used|no longer needed|redundant|useless|duplicate(d)?|deprecated|obsolete(d)?|commented)|mov(e|es|ed|ing)?[\\s\\S]{1,50}(unnecessary|unneeded|unused|(not|never|no longer) used|no longer needed|redundant|useless|duplicate(d)?|deprecated|obsolete(d)?|commented))(^|$|[^a-z\_]))|((^|$|[^a-z\_])(aren\'t|didn\'t|don\'t|doesn\'t|isn\'t|lack|n\'t|never|no|nobody|none|not|nothing|weren\'t|without|won\'t))[\\s\\S]{0,10}((^|$|[^a-z\_])(add(s|ed|ing)?[\\s\\S]{1,50}helper(s)?|us(e|es|ed|ing)[\\s\\S]{1,50}instead|split(s|ing)?[\\s\\S]{1,50}into|break(s|ing)?[\\s\\S]{1,50}into|separat(e|e s|ed|ing)[\\s\\S]{1,50}into|replac(e|es|ed|ing)?[\\s\\S]{1,50}(unnecessary|unneeded|unused|(not|never|no longer) used|no longer needed|redundant|useless|duplicate(d)?|deprecated|obsolete(d)?|commented)|remov(e|es|ed|ing)[\\s\\S]{1,50}(unnecessary|unneeded|unused|(not|never|no longer) used|no longer needed|redundant|useless|duplicate(d)?|deprecated|obsolete(d)?|commented)|kill(s|ed|ing)?[\\s\\S]{1,50}(unnecessary|unneeded|unused|(not|never|no longer) used|no longer needed|redundant|useless|duplicate(d)?|deprecated|obsolete(d)?|commented)|drop(s|ed|ing)?[\\s\\S]{1,50}(unnecessary|unneeded|unused|(not|never|no longer) used|no longer needed|redundant|useless|duplicate(d)?|deprecated|obsolete(d)?|commented)|mov(e|es|ed|ing)?[\\s\\S]{1,50}(unnecessary|unneeded|unused|(not|never|no longer) used|no longer needed|redundant|useless|duplicate(d)?|deprecated|obsolete(d)?|commented))(^|$|[^a-z\_]))|((^|$|[^a-z\_])(for(get|gets|got|geting)|allow(s|ed|ing)?))[\\s\\S]{0,10}((^|$|[^a-z\_])(add(s|ed|ing)?[\\s\\S]{1,50}helper(s)?|us(e|es|ed|ing)[\\s\\S]{1,50}instead|split(s|ing)?[\\s\\S]{1,50}into|break(s|ing)?[\\s\\S]{1,50}into|separat(e|e s|ed|ing)[\\s\\S]{1,50}into|replac(e|es|ed|ing)?[\\s\\S]{1,50}(unnecessary|unneeded|unused|(not|never|no longer) used|no longer needed|redundant|useless|duplicate(d)?|deprecated|obsolete(d)?|commented)|remov(e|es|ed|ing)[\\s\\S]{1,50}(unnecessary|unneeded|unused|(not|never|no longer) used|no longer needed|redundant|useless|duplicate(d)?|deprecated|obsolete(d)?|commented)|kill(s|ed|ing)?[\\s\\S]{1,50}(unnecessary|unneeded|unused|(not|never|no longer) used|no longer needed|redundant|useless|duplicate(d)?|deprecated|obsolete(d)?|commented)|drop(s|ed|ing)?[\\s\\S]{1,50}(unnecessary|unneeded|unused|(not|never|no longer) used|no longer needed|redundant|useless|duplicate(d)?|deprecated|obsolete(d)?|commented)|mov(e|es|ed|ing)?[\\s\\S]{1,50}(unnecessary|unneeded|unused|(not|never|no longer) used|no longer needed|redundant|useless|duplicate(d)?|deprecated|obsolete(d)?|commented))(^|$|[^a-z\_]))|((^|$|[^a-z\_])(change( |-)?log|comment(s)?|copy( |-)?right(s)?|doc(s)?|documentation|explanation(s)?|man( |-)?page(s)?|manual|note(s)?|readme(.md)?|translation(s)?|java( |-)?doc(s)?|java( |-)?documentation|example(s)?|diagram(s)?|guide(s)?|icon(s)?|doc( |-)?string(s)?|tutorials(s)?|help|man|doc( |-)?string(s)?|desc|copy( |-)?right(s)?|explanation(s)?))[\\s\\S]{0,10}((^|$|[^a-z\_])(add(s|ed|ing)?[\\s\\S]{1,50}helper(s)?|us(e|es|ed|ing)[\\s\\S]{1,50}instead|split(s|ing)?[\\s\\S]{1,50}into|break(s|ing)?[\\s\\S]{1,50}into|separat(e|e s|ed|ing)[\\s\\S]{1,50}into|replac(e|es|ed|ing)?[\\s\\S]{1,50}(unnecessary|unneeded|unused|(not|never|no longer) used|no longer needed|redundant|useless|duplicate(d)?|deprecated|obsolete(d)?|commented)|remov(e|es|ed|ing)[\\s\\S]{1,50}(unnecessary|unneeded|unused|(not|never|no longer) used|no longer needed|redundant|useless|duplicate(d)?|deprecated|obsolete(d)?|commented)|kill(s|ed|ing)?[\\s\\S]{1,50}(unnecessary|unneeded|unused|(not|never|no longer) used|no longer needed|redundant|useless|duplicate(d)?|deprecated|obsolete(d)?|commented)|drop(s|ed|ing)?[\\s\\S]{1,50}(unnecessary|unneeded|unused|(not|never|no longer) used|no longer needed|redundant|useless|duplicate(d)?|deprecated|obsolete(d)?|commented)|mov(e|es|ed|ing)?[\\s\\S]{1,50}(unnecessary|unneeded|unused|(not|never|no longer) used|no longer needed|redundant|useless|duplicate(d)?|deprecated|obsolete(d)?|commented))(^|$|[^a-z\_])))', '')))

# Refactor :build\_non\_positive\_linguistic(build\_refactor\_goals\_regex())

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(LENGTH(REGEXP\_REPLACE(lower(message),'(((^|$|[^a-z\_])(can|could|ha(ve|s|d)|may|might|must|need|ought|shall|should|will|would))[\\s\\S]{0,10}((((^|$|[^a-z\_])(better|improv(e|es|ed|ing)|increas(e|es|ed|ing)|reduc(e|es|ed|ing)|worse|make|more|less))((^|$|[^a-z\_])|(^|$|[^a-z\_])[\\s\\S]{0,50}(^|$|[^a-z\_]))(abstraction|coherence|cohesion|complexity|correctness|coupling|dependability|duplication|efficiency|extensibility|flexibility|maintainability|naming|performance|portability|quality|readability|reliability|re(-| )?use|re(-| )?usability|security|simplicity|testability|testable|re(-| )?usable|readable|portable|maintainable|flexible|efficient|encapsulation)(^|$|[^a-z\_])))|((^|$|[^a-z\_])(aren\'t|didn\'t|don\'t|doesn\'t|isn\'t|lack|n\'t|never|no|nobody|none|not|nothing|weren\'t|without|won\'t))[\\s\\S]{0,10}((((^|$|[^a-z\_])(better|improv(e|es|ed|ing)|increas(e|es|ed|ing)|reduc(e|es|ed|ing)|worse|make|more|less))((^|$|[^a-z\_])|(^|$|[^a-z\_])[\\s\\S]{0,50}(^|$|[^a-z\_]))(abstraction|coherence|cohesion|complexity|correctness|coupling|dependability|duplication|efficiency|extensibility|flexibility|maintainability|naming|performance|portability|quality|readability|reliability|re(-| )?use|re(-| )?usability|security|simplicity|testability|testable|re(-| )?usable|readable|portable|maintainable|flexible|efficient|encapsulation)(^|$|[^a-z\_])))|((^|$|[^a-z\_])(for(get|gets|got|geting)|allow(s|ed|ing)?))[\\s\\S]{0,10}((((^|$|[^a-z\_])(better|improv(e|es|ed|ing)|increas(e|es|ed|ing)|reduc(e|es|ed|ing)|worse|make|more|less))((^|$|[^a-z\_])|(^|$|[^a-z\_])[\\s\\S]{0,50}(^|$|[^a-z\_]))(abstraction|coherence|cohesion|complexity|correctness|coupling|dependability|duplication|efficiency|extensibility|flexibility|maintainability|naming|performance|portability|quality|readability|reliability|re(-| )?use|re(-| )?usability|security|simplicity|testability|testable|re(-| )?usable|readable|portable|maintainable|flexible|efficient|encapsulation)(^|$|[^a-z\_])))|((^|$|[^a-z\_])(change( |-)?log|comment(s)?|copy( |-)?right(s)?|doc(s)?|documentation|explanation(s)?|man( |-)?page(s)?|manual|note(s)?|readme(.md)?|translation(s)?|java( |-)?doc(s)?|java( |-)?documentation|example(s)?|diagram(s)?|guide(s)?|icon(s)?|doc( |-)?string(s)?|tutorials(s)?|help|man|doc( |-)?string(s)?|desc|copy( |-)?right(s)?|explanation(s)?))[\\s\\S]{0,10}((((^|$|[^a-z\_])(better|improv(e|es|ed|ing)|increas(e|es|ed|ing)|reduc(e|es|ed|ing)|worse|make|more|less))((^|$|[^a-z\_])|(^|$|[^a-z\_])[\\s\\S]{0,50}(^|$|[^a-z\_]))(abstraction|coherence|cohesion|complexity|correctness|coupling|dependability|duplication|efficiency|extensibility|flexibility|maintainability|naming|performance|portability|quality|readability|reliability|re(-| )?use|re(-| )?usability|security|simplicity|testability|testable|re(-| )?usable|readable|portable|maintainable|flexible|efficient|encapsulation)(^|$|[^a-z\_]))))', '@'))-LENGTH(REGEXP\_REPLACE(lower(message),'(((^|$|[^a-z\_])(can|could|ha(ve|s|d)|may|might|must|need|ought|shall|should|will|would))[\\s\\S]{0,10}((((^|$|[^a-z\_])(better|improv(e|es|ed|ing)|increas(e|es|ed|ing)|reduc(e|es|ed|ing)|worse|make|more|less))((^|$|[^a-z\_])|(^|$|[^a-z\_])[\\s\\S]{0,50}(^|$|[^a-z\_]))(abstraction|coherence|cohesion|complexity|correctness|coupling|dependability|duplication|efficiency|extensibility|flexibility|maintainability|naming|performance|portability|quality|readability|reliability|re(-| )?use|re(-| )?usability|security|simplicity|testability|testable|re(-| )?usable|readable|portable|maintainable|flexible|efficient|encapsulation)(^|$|[^a-z\_])))|((^|$|[^a-z\_])(aren\'t|didn\'t|don\'t|doesn\'t|isn\'t|lack|n\'t|never|no|nobody|none|not|nothing|weren\'t|without|won\'t))[\\s\\S]{0,10}((((^|$|[^a-z\_])(better|improv(e|es|ed|ing)|increas(e|es|ed|ing)|reduc(e|es|ed|ing)|worse|make|more|less))((^|$|[^a-z\_])|(^|$|[^a-z\_])[\\s\\S]{0,50}(^|$|[^a-z\_]))(abstraction|coherence|cohesion|complexity|correctness|coupling|dependability|duplication|efficiency|extensibility|flexibility|maintainability|naming|performance|portability|quality|readability|reliability|re(-| )?use|re(-| )?usability|security|simplicity|testability|testable|re(-| )?usable|readable|portable|maintainable|flexible|efficient|encapsulation)(^|$|[^a-z\_])))|((^|$|[^a-z\_])(for(get|gets|got|geting)|allow(s|ed|ing)?))[\\s\\S]{0,10}((((^|$|[^a-z\_])(better|improv(e|es|ed|ing)|increas(e|es|ed|ing)|reduc(e|es|ed|ing)|worse|make|more|less))((^|$|[^a-z\_])|(^|$|[^a-z\_])[\\s\\S]{0,50}(^|$|[^a-z\_]))(abstraction|coherence|cohesion|complexity|correctness|coupling|dependability|duplication|efficiency|extensibility|flexibility|maintainability|naming|performance|portability|quality|readability|reliability|re(-| )?use|re(-| )?usability|security|simplicity|testability|testable|re(-| )?usable|readable|portable|maintainable|flexible|efficient|encapsulation)(^|$|[^a-z\_])))|((^|$|[^a-z\_])(change( |-)?log|comment(s)?|copy( |-)?right(s)?|doc(s)?|documentation|explanation(s)?|man( |-)?page(s)?|manual|note(s)?|readme(.md)?|translation(s)?|java( |-)?doc(s)?|java( |-)?documentation|example(s)?|diagram(s)?|guide(s)?|icon(s)?|doc( |-)?string(s)?|tutorials(s)?|help|man|doc( |-)?string(s)?|desc|copy( |-)?right(s)?|explanation(s)?))[\\s\\S]{0,10}((((^|$|[^a-z\_])(better|improv(e|es|ed|ing)|increas(e|es|ed|ing)|reduc(e|es|ed|ing)|worse|make|more|less))((^|$|[^a-z\_])|(^|$|[^a-z\_])[\\s\\S]{0,50}(^|$|[^a-z\_]))(abstraction|coherence|cohesion|complexity|correctness|coupling|dependability|duplication|efficiency|extensibility|flexibility|maintainability|naming|performance|portability|quality|readability|reliability|re(-| )?use|re(-| )?usability|security|simplicity|testability|testable|re(-| )?usable|readable|portable|maintainable|flexible|efficient|encapsulation)(^|$|[^a-z\_]))))', '')))

As refactor\_matches

# Adaptive

# Adaptive :build\_adaptive\_regex()

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(LENGTH(REGEXP\_REPLACE(lower(message),'(((^|$|[^a-z\_])((un)?hid(e|es|den)|add(s|ed|ing)?|allow(s|ed|ing)?|buil(t|ds|ing)|calibirat(e|es|ed|ing)|configure|creat(e|es|ing)|deferr(ed|s|ing)?|disabl(e|es|ed|ing)|enhanc(e|es|ed|ing)|extend(s|ed|ing)?|form(ed|s|ing)?|implement(ed|s|ing)?|import(s|ed|ing)?|introduc(e|es|ed|ing)|port(s|ed|ing)?|provid(e|es|ed|ing)|report(s|ed|ing)?|support(s|ed|ing)?|updat(e|es|ed|ing)|upgrad(e|es|ed|ing)))\\s[\\s\\S]{0,50}(ability|configuration|conversion|debug|new|possibility|support|test(s)?|tweak(s)?|mode|option|algorithm(s)?|assertion(s)?|assignment(s)?|class(es)?|code|collection(s)?|conditional(s)?|constant(s)?|constructor(s)?|control|delegate|delegation|design pattern(s)?|error(-| )?code(s)?|exception(s)?|field(s)?|flag(s)?|function(s)?|getter(s)?|guard clause(s)?|hierarch(y|ies)|implementation(s)?|inheritance|inline|interface(s)?|internal|macro(s)?|magic number(s)?|member(s)?|method(s)?|modifier(s)?|null object(s)?|object(s)?|parameter(s)?|patch(es)?|pointer(s)?|polymorphism|quer(y|ies)|reference(s)?|ref(s)?|return type|setter(s)?|static|structure(s)?|sub(-| )?class(es)?|super(-| )?class(es)?|(sub)?(-| )?system(s)?|template(s)?|type(s)?|uninline|variable(s)?|handler|plugin|unit(s)?|contravariant|covariant|action(s)?|queue(s)?|stack(s)?|driver(s)?|storage|tool(s)?|module(s)?|log(s)?|setting(s)?|fall( |-)back(s)?|memory|param(s)?|volatile|file(s)?|generic(s)?|initialization(s)?|public|protected|private|framework|singelton|declaration(s)?|init|destructor(s)?|instances(s)?|primitive(s)?)(^|$|[^a-z\_]))', '@'))-LENGTH(REGEXP\_REPLACE(lower(message),'(((^|$|[^a-z\_])((un)?hid(e|es|den)|add(s|ed|ing)?|allow(s|ed|ing)?|buil(t|ds|ing)|calibirat(e|es|ed|ing)|configure|creat(e|es|ing)|deferr(ed|s|ing)?|disabl(e|es|ed|ing)|enhanc(e|es|ed|ing)|extend(s|ed|ing)?|form(ed|s|ing)?|implement(ed|s|ing)?|import(s|ed|ing)?|introduc(e|es|ed|ing)|port(s|ed|ing)?|provid(e|es|ed|ing)|report(s|ed|ing)?|support(s|ed|ing)?|updat(e|es|ed|ing)|upgrad(e|es|ed|ing)))\\s[\\s\\S]{0,50}(ability|configuration|conversion|debug|new|possibility|support|test(s)?|tweak(s)?|mode|option|algorithm(s)?|assertion(s)?|assignment(s)?|class(es)?|code|collection(s)?|conditional(s)?|constant(s)?|constructor(s)?|control|delegate|delegation|design pattern(s)?|error(-| )?code(s)?|exception(s)?|field(s)?|flag(s)?|function(s)?|getter(s)?|guard clause(s)?|hierarch(y|ies)|implementation(s)?|inheritance|inline|interface(s)?|internal|macro(s)?|magic number(s)?|member(s)?|method(s)?|modifier(s)?|null object(s)?|object(s)?|parameter(s)?|patch(es)?|pointer(s)?|polymorphism|quer(y|ies)|reference(s)?|ref(s)?|return type|setter(s)?|static|structure(s)?|sub(-| )?class(es)?|super(-| )?class(es)?|(sub)?(-| )?system(s)?|template(s)?|type(s)?|uninline|variable(s)?|handler|plugin|unit(s)?|contravariant|covariant|action(s)?|queue(s)?|stack(s)?|driver(s)?|storage|tool(s)?|module(s)?|log(s)?|setting(s)?|fall( |-)back(s)?|memory|param(s)?|volatile|file(s)?|generic(s)?|initialization(s)?|public|protected|private|framework|singelton|declaration(s)?|init|destructor(s)?|instances(s)?|primitive(s)?)(^|$|[^a-z\_]))', '')))

#Adaptive :build\_adaptive\_action\_regex()

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(LENGTH(REGEXP\_REPLACE(lower(message),'(add(s|ed|ing)?[\\s\\S]{1,50}(version|v\\d|ver\\d)|(^|\\s)implement(ed|s|ing)?\\s|(make(s)?|made|making)[\\s\\S]{1,50}consitent|updat(e|es|ed|ing)[\\s\\S]{1,25}to[\\s\\S]{1,25}\\d+.\\d|updat(e|es|ed|ing)\\s+(to\\s+)?\\d+\\.\\d|(add(s|ed|ing)?|delet(e|es|ed|ing)|updat(e|es|ed|ing))\\s+([a-z -Z0-9\_\\\*\\.])+\\.[a-zA-Z]{1,4}|(^|^[\\s\\S]{0,25}(^|$|[^a-z\_]))(upgrad(e|es|ed|ing)|configur(e|es|ed|ing)|(keep|change)\\s+(the\\s+)?default|new|clear(s|ed|ing)?|add(s|ed|ing)?|(im)?port(s|ed|ing)?|(un)?hid(e|es|den)|updat(e|es|ed|ing)|disabl(e|es|ed|ing)|enabl(e|es|ed|ing)|quirk(s|ed|ing)?|allow(s|ed|ing)?|provid(e|es|ed|ing)|remov(e|es|ed|ing))(^|$|[^a-z\_])|^\\[(IMP|imp)\\]|support(s|ed|ing)?\\sfor\\s|show(es|ed|ing)?[\\s\\S]instead)', '@'))-LENGTH(REGEXP\_REPLACE(lower(message),'(add(s|ed|ing)?[\\s\\S]{1,50}(version|v\\d|ver\\d)|(^|\\s)implement(ed|s|ing)?\\s|(make(s)?|made|making)[\\s\\S]{1,50}consitent|updat(e|es|ed|ing)[\\s\\S]{1,25}to[\\s\\S]{1,25}\\d+.\\d|updat(e|es|ed|ing)\\s+(to\\s+)?\\d+\\.\\d|(add(s|ed|ing)?|delet(e|es|ed|ing)|updat(e|es|ed|ing))\\s+([a-z -Z0-9\_\\\*\\.])+\\.[a-zA-Z]{1,4}|(^|^[\\s\\S]{0,25}(^|$|[^a-z\_]))(upgrad(e|es|ed|ing)|configur(e|es|ed|ing)|(keep|change)\\s+(the\\s+)?default|new|clear(s|ed|ing)?|add(s|ed|ing)?|(im)?port(s|ed|ing)?|(un)?hid(e|es|den)|updat(e|es|ed|ing)|disabl(e|es|ed|ing)|enabl(e|es|ed|ing)|quirk(s|ed|ing)?|allow(s|ed|ing)?|provid(e|es|ed|ing)|remov(e|es|ed|ing))(^|$|[^a-z\_])|^\\[(IMP|imp)\\]|support(s|ed|ing)?\\sfor\\s|show(es|ed|ing)?[\\s\\S]instead)', '')))

# Adaptive :build\_non\_adaptive\_context()

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(LENGTH(REGEXP\_REPLACE(lower(message),'(((^|$|[^a-z\_])((un)?hid(e|es|den)|add(s|ed|ing)?|allow(s|ed|ing)?|buil(t|ds|ing)|calibirat(e|es|ed|ing)|configure|creat(e|es|ing)|deferr(ed|s|ing)?|disabl(e|es|ed|ing)|enhanc(e|es|ed|ing)|extend(s|ed|ing)?|form(ed|s|ing)?|implement(ed|s|ing)?|import(s|ed|ing)?|introduc(e|es|ed|ing)|port(s|ed|ing)?|provid(e|es|ed|ing)|report(s|ed|ing)?|support(s|ed|ing)?|updat(e|es|ed|ing)|upgrad(e|es|ed|ing)))\\s[\\s\\S]{0,50}(change( |-)?log|comment(s)?|copy( |-)?right(s)?|doc(s)?|documentation|explanation(s)?|man( |-)?page(s)?|manual|note(s)?|readme(.md)?|translation(s)?|java( |-)?doc(s)?|java( |-)?documentation|example(s)?|diagram(s)?|guide(s)?|icon(s)?|doc( |-)?string(s)?|tutorials(s)?|help|man|doc( |-)?string(s)?|desc|copy( |-)?right(s)?|explanation(s)?|bug|helper|miss(ing|ed)|to( |-)?do(s)?|warning(s)?)|^[\\s\\S]{0,50}(transla(tion|et|eted|ets|ting)|readme(.md)?)|((^|$|[^a-z\_])(remov(e|es|ed|ing)))\\s[\\s\\S]{0,50}(change( |-)?log|comment(s)?|copy( |-)?right(s)?|doc(s)?|documentation|explanation(s)?|man( |-)?page(s)?|manual|note(s)?|readme(.md)?|translation(s)?|java( |-)?doc(s)?|java( |-)?documentation|example(s)?|diagram(s)?|guide(s)?|icon(s)?|doc( |-)?string(s)?|tutorials(s)?|help|man|doc( |-)?string(s)?|desc|copy( |-)?right(s)?|explanation(s)?|algorithm(s)?|assertion(s)?|assignment(s)?|class(es)?|code|collection(s)?|conditional(s)?|constant(s)?|constructor(s)?|control|delegate|delegation|design pattern(s)?|error(-| )?code(s)?|exception(s)?|field(s)?|flag(s)?|function(s)?|getter(s)?|guard clause(s)?|hierarch(y|ies)|implementation(s)?|inheritance|inline|interface(s)?|internal|macro(s)?|magic number(s)?|member(s)?|method(s)?|modifier(s)?|null object(s)?|object(s)?|parameter(s)?|patch(es)?|pointer(s)?|polymorphism|quer(y|ies)|reference(s)?|ref(s)?|return type|setter(s)?|static|structure(s)?|sub(-| )?class(es)?|super(-| )?class(es)?|(sub)?(-| )?system(s)?|template(s)?|type(s)?|uninline|variable(s)?|handler|plugin|unit(s)?|contravariant|covariant|action(s)?|queue(s)?|stack(s)?|driver(s)?|storage|tool(s)?|module(s)?|log(s)?|setting(s)?|fall( |-)back(s)?|memory|param(s)?|volatile|file(s)?|generic(s)?|initialization(s)?|public|protected|private|framework|singelton|declaration(s)?|init|destructor(s)?|instances(s)?|primitive(s)?|unnecessary|unneeded|unused|(not|never|no longer) used|no longer needed|redundant|useless|duplicate(d)?|deprecated|obsolete(d)?|commented|([a-z -Z0-9\_\\\*\\.])+\\.[a-zA-Z]{1,4}))', '@'))-LENGTH(REGEXP\_REPLACE(lower(message),'(((^|$|[^a-z\_])((un)?hid(e|es|den)|add(s|ed|ing)?|allow(s|ed|ing)?|buil(t|ds|ing)|calibirat(e|es|ed|ing)|configure|creat(e|es|ing)|deferr(ed|s|ing)?|disabl(e|es|ed|ing)|enhanc(e|es|ed|ing)|extend(s|ed|ing)?|form(ed|s|ing)?|implement(ed|s|ing)?|import(s|ed|ing)?|introduc(e|es|ed|ing)|port(s|ed|ing)?|provid(e|es|ed|ing)|report(s|ed|ing)?|support(s|ed|ing)?|updat(e|es|ed|ing)|upgrad(e|es|ed|ing)))\\s[\\s\\S]{0,50}(change( |-)?log|comment(s)?|copy( |-)?right(s)?|doc(s)?|documentation|explanation(s)?|man( |-)?page(s)?|manual|note(s)?|readme(.md)?|translation(s)?|java( |-)?doc(s)?|java( |-)?documentation|example(s)?|diagram(s)?|guide(s)?|icon(s)?|doc( |-)?string(s)?|tutorials(s)?|help|man|doc( |-)?string(s)?|desc|copy( |-)?right(s)?|explanation(s)?|bug|helper|miss(ing|ed)|to( |-)?do(s)?|warning(s)?)|^[\\s\\S]{0,50}(transla(tion|et|eted|ets|ting)|readme(.md)?)|((^|$|[^a-z\_])(remov(e|es|ed|ing)))\\s[\\s\\S]{0,50}(change( |-)?log|comment(s)?|copy( |-)?right(s)?|doc(s)?|documentation|explanation(s)?|man( |-)?page(s)?|manual|note(s)?|readme(.md)?|translation(s)?|java( |-)?doc(s)?|java( |-)?documentation|example(s)?|diagram(s)?|guide(s)?|icon(s)?|doc( |-)?string(s)?|tutorials(s)?|help|man|doc( |-)?string(s)?|desc|copy( |-)?right(s)?|explanation(s)?|algorithm(s)?|assertion(s)?|assignment(s)?|class(es)?|code|collection(s)?|conditional(s)?|constant(s)?|constructor(s)?|control|delegate|delegation|design pattern(s)?|error(-| )?code(s)?|exception(s)?|field(s)?|flag(s)?|function(s)?|getter(s)?|guard clause(s)?|hierarch(y|ies)|implementation(s)?|inheritance|inline|interface(s)?|internal|macro(s)?|magic number(s)?|member(s)?|method(s)?|modifier(s)?|null object(s)?|object(s)?|parameter(s)?|patch(es)?|pointer(s)?|polymorphism|quer(y|ies)|reference(s)?|ref(s)?|return type|setter(s)?|static|structure(s)?|sub(-| )?class(es)?|super(-| )?class(es)?|(sub)?(-| )?system(s)?|template(s)?|type(s)?|uninline|variable(s)?|handler|plugin|unit(s)?|contravariant|covariant|action(s)?|queue(s)?|stack(s)?|driver(s)?|storage|tool(s)?|module(s)?|log(s)?|setting(s)?|fall( |-)back(s)?|memory|param(s)?|volatile|file(s)?|generic(s)?|initialization(s)?|public|protected|private|framework|singelton|declaration(s)?|init|destructor(s)?|instances(s)?|primitive(s)?|unnecessary|unneeded|unused|(not|never|no longer) used|no longer needed|redundant|useless|duplicate(d)?|deprecated|obsolete(d)?|commented|([a-z -Z0-9\_\\\*\\.])+\\.[a-zA-Z]{1,4}))', '')))

# Adaptive :build\_non\_adaptive\_linguistic()

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(LENGTH(REGEXP\_REPLACE(lower(message),'(((^|$|[^a-z\_])(can|could|ha(ve|s|d)|may|might|must|need|ought|shall|should|will|would))[\\s\\S]{0,10}((((^|$|[^a-z\_])((un)?hid(e|es|den)|add(s|ed|ing)?|allow(s|ed|ing)?|buil(t|ds|ing)|calibirat(e|es|ed|ing)|configure|creat(e|es|ing)|deferr(ed|s|ing)?|disabl(e|es|ed|ing)|enhanc(e|es|ed|ing)|extend(s|ed|ing)?|form(ed|s|ing)?|implement(ed|s|ing)?|import(s|ed|ing)?|introduc(e|es|ed|ing)|port(s|ed|ing)?|provid(e|es|ed|ing)|report(s|ed|ing)?|support(s|ed|ing)?|updat(e|es|ed|ing)|upgrad(e|es|ed|ing)))\\s[\\s\\S]{0,50}(ability|configuration|conversion|debug|new|possibility|support|test(s)?|tweak(s)?|mode|option|algorithm(s)?|assertion(s)?|assignment(s)?|class(es)?|code|collection(s)?|conditional(s)?|constant(s)?|constructor(s)?|control|delegate|delegation|design pattern(s)?|error(-| )?code(s)?|exception(s)?|field(s)?|flag(s)?|function(s)?|getter(s)?|guard clause(s)?|hierarch(y|ies)|implementation(s)?|inheritance|inline|interface(s)?|internal|macro(s)?|magic number(s)?|member(s)?|method(s)?|modifier(s)?|null object(s)?|object(s)?|parameter(s)?|patch(es)?|pointer(s)?|polymorphism|quer(y|ies)|reference(s)?|ref(s)?|return type|setter(s)?|static|structure(s)?|sub(-| )?class(es)?|super(-| )?class(es)?|(sub)?(-| )?system(s)?|template(s)?|type(s)?|uninline|variable(s)?|handler|plugin|unit(s)?|contravariant|covariant|action(s)?|queue(s)?|stack(s)?|driver(s)?|storage|tool(s)?|module(s)?|log(s)?|setting(s)?|fall( |-)back(s)?|memory|param(s)?|volatile|file(s)?|generic(s)?|initialization(s)?|public|protected|private|framework|singelton|declaration(s)?|init|destructor(s)?|instances(s)?|primitive(s)?)(^|$|[^a-z\_])))|((^|$|[^a-z\_])(aren\'t|didn\'t|don\'t|doesn\'t|isn\'t|lack|n\'t|never|no|nobody|none|not|nothing|weren\'t|without|won\'t))[\\s\\S]{0,10}((((^|$|[^a-z\_])((un)?hid(e|es|den)|add(s|ed|ing)?|allow(s|ed|ing)?|buil(t|ds|ing)|calibirat(e|es|ed|ing)|configure|creat(e|es|ing)|deferr(ed|s|ing)?|disabl(e|es|ed|ing)|enhanc(e|es|ed|ing)|extend(s|ed|ing)?|form(ed|s|ing)?|implement(ed|s|ing)?|import(s|ed|ing)?|introduc(e|es|ed|ing)|port(s|ed|ing)?|provid(e|es|ed|ing)|report(s|ed|ing)?|support(s|ed|ing)?|updat(e|es|ed|ing)|upgrad(e|es|ed|ing)))\\s[\\s\\S]{0,50}(ability|configuration|conversion|debug|new|possibility|support|test(s)?|tweak(s)?|mode|option|algorithm(s)?|assertion(s)?|assignment(s)?|class(es)?|code|collection(s)?|conditional(s)?|constant(s)?|constructor(s)?|control|delegate|delegation|design pattern(s)?|error(-| )?code(s)?|exception(s)?|field(s)?|flag(s)?|function(s)?|getter(s)?|guard clause(s)?|hierarch(y|ies)|implementation(s)?|inheritance|inline|interface(s)?|internal|macro(s)?|magic number(s)?|member(s)?|method(s)?|modifier(s)?|null object(s)?|object(s)?|parameter(s)?|patch(es)?|pointer(s)?|polymorphism|quer(y|ies)|reference(s)?|ref(s)?|return type|setter(s)?|static|structure(s)?|sub(-| )?class(es)?|super(-| )?class(es)?|(sub)?(-| )?system(s)?|template(s)?|type(s)?|uninline|variable(s)?|handler|plugin|unit(s)?|contravariant|covariant|action(s)?|queue(s)?|stack(s)?|driver(s)?|storage|tool(s)?|module(s)?|log(s)?|setting(s)?|fall( |-)back(s)?|memory|param(s)?|volatile|file(s)?|generic(s)?|initialization(s)?|public|protected|private|framework|singelton|declaration(s)?|init|destructor(s)?|instances(s)?|primitive(s)?)(^|$|[^a-z\_])))|((^|$|[^a-z\_])(for(get|gets|got|geting)|allow(s|ed|ing)?))[\\s\\S]{0,10}((((^|$|[^a-z\_])((un)?hid(e|es|den)|add(s|ed|ing)?|allow(s|ed|ing)?|buil(t|ds|ing)|calibirat(e|es|ed|ing)|configure|creat(e|es|ing)|deferr(ed|s|ing)?|disabl(e|es|ed|ing)|enhanc(e|es|ed|ing)|extend(s|ed|ing)?|form(ed|s|ing)?|implement(ed|s|ing)?|import(s|ed|ing)?|introduc(e|es|ed|ing)|port(s|ed|ing)?|provid(e|es|ed|ing)|report(s|ed|ing)?|support(s|ed|ing)?|updat(e|es|ed|ing)|upgrad(e|es|ed|ing)))\\s[\\s\\S]{0,50}(ability|configuration|conversion|debug|new|possibility|support|test(s)?|tweak(s)?|mode|option|algorithm(s)?|assertion(s)?|assignment(s)?|class(es)?|code|collection(s)?|conditional(s)?|constant(s)?|constructor(s)?|control|delegate|delegation|design pattern(s)?|error(-| )?code(s)?|exception(s)?|field(s)?|flag(s)?|function(s)?|getter(s)?|guard clause(s)?|hierarch(y|ies)|implementation(s)?|inheritance|inline|interface(s)?|internal|macro(s)?|magic number(s)?|member(s)?|method(s)?|modifier(s)?|null object(s)?|object(s)?|parameter(s)?|patch(es)?|pointer(s)?|polymorphism|quer(y|ies)|reference(s)?|ref(s)?|return type|setter(s)?|static|structure(s)?|sub(-| )?class(es)?|super(-| )?class(es)?|(sub)?(-| )?system(s)?|template(s)?|type(s)?|uninline|variable(s)?|handler|plugin|unit(s)?|contravariant|covariant|action(s)?|queue(s)?|stack(s)?|driver(s)?|storage|tool(s)?|module(s)?|log(s)?|setting(s)?|fall( |-)back(s)?|memory|param(s)?|volatile|file(s)?|generic(s)?|initialization(s)?|public|protected|private|framework|singelton|declaration(s)?|init|destructor(s)?|instances(s)?|primitive(s)?)(^|$|[^a-z\_])))|((^|$|[^a-z\_])(change( |-)?log|comment(s)?|copy( |-)?right(s)?|doc(s)?|documentation|explanation(s)?|man( |-)?page(s)?|manual|note(s)?|readme(.md)?|translation(s)?|java( |-)?doc(s)?|java( |-)?documentation|example(s)?|diagram(s)?|guide(s)?|icon(s)?|doc( |-)?string(s)?|tutorials(s)?|help|man|doc( |-)?string(s)?|desc|copy( |-)?right(s)?|explanation(s)?))[\\s\\S]{0,10}((((^|$|[^a-z\_])((un)?hid(e|es|den)|add(s|ed|ing)?|allow(s|ed|ing)?|buil(t|ds|ing)|calibirat(e|es|ed|ing)|configure|creat(e|es|ing)|deferr(ed|s|ing)?|disabl(e|es|ed|ing)|enhanc(e|es|ed|ing)|extend(s|ed|ing)?|form(ed|s|ing)?|implement(ed|s|ing)?|import(s|ed|ing)?|introduc(e|es|ed|ing)|port(s|ed|ing)?|provid(e|es|ed|ing)|report(s|ed|ing)?|support(s|ed|ing)?|updat(e|es|ed|ing)|upgrad(e|es|ed|ing)))\\s[\\s\\S]{0,50}(ability|configuration|conversion|debug|new|possibility|support|test(s)?|tweak(s)?|mode|option|algorithm(s)?|assertion(s)?|assignment(s)?|class(es)?|code|collection(s)?|conditional(s)?|constant(s)?|constructor(s)?|control|delegate|delegation|design pattern(s)?|error(-| )?code(s)?|exception(s)?|field(s)?|flag(s)?|function(s)?|getter(s)?|guard clause(s)?|hierarch(y|ies)|implementation(s)?|inheritance|inline|interface(s)?|internal|macro(s)?|magic number(s)?|member(s)?|method(s)?|modifier(s)?|null object(s)?|object(s)?|parameter(s)?|patch(es)?|pointer(s)?|polymorphism|quer(y|ies)|reference(s)?|ref(s)?|return type|setter(s)?|static|structure(s)?|sub(-| )?class(es)?|super(-| )?class(es)?|(sub)?(-| )?system(s)?|template(s)?|type(s)?|uninline|variable(s)?|handler|plugin|unit(s)?|contravariant|covariant|action(s)?|queue(s)?|stack(s)?|driver(s)?|storage|tool(s)?|module(s)?|log(s)?|setting(s)?|fall( |-)back(s)?|memory|param(s)?|volatile|file(s)?|generic(s)?|initialization(s)?|public|protected|private|framework|singelton|declaration(s)?|init|destructor(s)?|instances(s)?|primitive(s)?)(^|$|[^a-z\_]))))', '@'))-LENGTH(REGEXP\_REPLACE(lower(message),'(((^|$|[^a-z\_])(can|could|ha(ve|s|d)|may|might|must|need|ought|shall|should|will|would))[\\s\\S]{0,10}((((^|$|[^a-z\_])((un)?hid(e|es|den)|add(s|ed|ing)?|allow(s|ed|ing)?|buil(t|ds|ing)|calibirat(e|es|ed|ing)|configure|creat(e|es|ing)|deferr(ed|s|ing)?|disabl(e|es|ed|ing)|enhanc(e|es|ed|ing)|extend(s|ed|ing)?|form(ed|s|ing)?|implement(ed|s|ing)?|import(s|ed|ing)?|introduc(e|es|ed|ing)|port(s|ed|ing)?|provid(e|es|ed|ing)|report(s|ed|ing)?|support(s|ed|ing)?|updat(e|es|ed|ing)|upgrad(e|es|ed|ing)))\\s[\\s\\S]{0,50}(ability|configuration|conversion|debug|new|possibility|support|test(s)?|tweak(s)?|mode|option|algorithm(s)?|assertion(s)?|assignment(s)?|class(es)?|code|collection(s)?|conditional(s)?|constant(s)?|constructor(s)?|control|delegate|delegation|design pattern(s)?|error(-| )?code(s)?|exception(s)?|field(s)?|flag(s)?|function(s)?|getter(s)?|guard clause(s)?|hierarch(y|ies)|implementation(s)?|inheritance|inline|interface(s)?|internal|macro(s)?|magic number(s)?|member(s)?|method(s)?|modifier(s)?|null object(s)?|object(s)?|parameter(s)?|patch(es)?|pointer(s)?|polymorphism|quer(y|ies)|reference(s)?|ref(s)?|return type|setter(s)?|static|structure(s)?|sub(-| )?class(es)?|super(-| )?class(es)?|(sub)?(-| )?system(s)?|template(s)?|type(s)?|uninline|variable(s)?|handler|plugin|unit(s)?|contravariant|covariant|action(s)?|queue(s)?|stack(s)?|driver(s)?|storage|tool(s)?|module(s)?|log(s)?|setting(s)?|fall( |-)back(s)?|memory|param(s)?|volatile|file(s)?|generic(s)?|initialization(s)?|public|protected|private|framework|singelton|declaration(s)?|init|destructor(s)?|instances(s)?|primitive(s)?)(^|$|[^a-z\_])))|((^|$|[^a-z\_])(aren\'t|didn\'t|don\'t|doesn\'t|isn\'t|lack|n\'t|never|no|nobody|none|not|nothing|weren\'t|without|won\'t))[\\s\\S]{0,10}((((^|$|[^a-z\_])((un)?hid(e|es|den)|add(s|ed|ing)?|allow(s|ed|ing)?|buil(t|ds|ing)|calibirat(e|es|ed|ing)|configure|creat(e|es|ing)|deferr(ed|s|ing)?|disabl(e|es|ed|ing)|enhanc(e|es|ed|ing)|extend(s|ed|ing)?|form(ed|s|ing)?|implement(ed|s|ing)?|import(s|ed|ing)?|introduc(e|es|ed|ing)|port(s|ed|ing)?|provid(e|es|ed|ing)|report(s|ed|ing)?|support(s|ed|ing)?|updat(e|es|ed|ing)|upgrad(e|es|ed|ing)))\\s[\\s\\S]{0,50}(ability|configuration|conversion|debug|new|possibility|support|test(s)?|tweak(s)?|mode|option|algorithm(s)?|assertion(s)?|assignment(s)?|class(es)?|code|collection(s)?|conditional(s)?|constant(s)?|constructor(s)?|control|delegate|delegation|design pattern(s)?|error(-| )?code(s)?|exception(s)?|field(s)?|flag(s)?|function(s)?|getter(s)?|guard clause(s)?|hierarch(y|ies)|implementation(s)?|inheritance|inline|interface(s)?|internal|macro(s)?|magic number(s)?|member(s)?|method(s)?|modifier(s)?|null object(s)?|object(s)?|parameter(s)?|patch(es)?|pointer(s)?|polymorphism|quer(y|ies)|reference(s)?|ref(s)?|return type|setter(s)?|static|structure(s)?|sub(-| )?class(es)?|super(-| )?class(es)?|(sub)?(-| )?system(s)?|template(s)?|type(s)?|uninline|variable(s)?|handler|plugin|unit(s)?|contravariant|covariant|action(s)?|queue(s)?|stack(s)?|driver(s)?|storage|tool(s)?|module(s)?|log(s)?|setting(s)?|fall( |-)back(s)?|memory|param(s)?|volatile|file(s)?|generic(s)?|initialization(s)?|public|protected|private|framework|singelton|declaration(s)?|init|destructor(s)?|instances(s)?|primitive(s)?)(^|$|[^a-z\_])))|((^|$|[^a-z\_])(for(get|gets|got|geting)|allow(s|ed|ing)?))[\\s\\S]{0,10}((((^|$|[^a-z\_])((un)?hid(e|es|den)|add(s|ed|ing)?|allow(s|ed|ing)?|buil(t|ds|ing)|calibirat(e|es|ed|ing)|configure|creat(e|es|ing)|deferr(ed|s|ing)?|disabl(e|es|ed|ing)|enhanc(e|es|ed|ing)|extend(s|ed|ing)?|form(ed|s|ing)?|implement(ed|s|ing)?|import(s|ed|ing)?|introduc(e|es|ed|ing)|port(s|ed|ing)?|provid(e|es|ed|ing)|report(s|ed|ing)?|support(s|ed|ing)?|updat(e|es|ed|ing)|upgrad(e|es|ed|ing)))\\s[\\s\\S]{0,50}(ability|configuration|conversion|debug|new|possibility|support|test(s)?|tweak(s)?|mode|option|algorithm(s)?|assertion(s)?|assignment(s)?|class(es)?|code|collection(s)?|conditional(s)?|constant(s)?|constructor(s)?|control|delegate|delegation|design pattern(s)?|error(-| )?code(s)?|exception(s)?|field(s)?|flag(s)?|function(s)?|getter(s)?|guard clause(s)?|hierarch(y|ies)|implementation(s)?|inheritance|inline|interface(s)?|internal|macro(s)?|magic number(s)?|member(s)?|method(s)?|modifier(s)?|null object(s)?|object(s)?|parameter(s)?|patch(es)?|pointer(s)?|polymorphism|quer(y|ies)|reference(s)?|ref(s)?|return type|setter(s)?|static|structure(s)?|sub(-| )?class(es)?|super(-| )?class(es)?|(sub)?(-| )?system(s)?|template(s)?|type(s)?|uninline|variable(s)?|handler|plugin|unit(s)?|contravariant|covariant|action(s)?|queue(s)?|stack(s)?|driver(s)?|storage|tool(s)?|module(s)?|log(s)?|setting(s)?|fall( |-)back(s)?|memory|param(s)?|volatile|file(s)?|generic(s)?|initialization(s)?|public|protected|private|framework|singelton|declaration(s)?|init|destructor(s)?|instances(s)?|primitive(s)?)(^|$|[^a-z\_])))|((^|$|[^a-z\_])(change( |-)?log|comment(s)?|copy( |-)?right(s)?|doc(s)?|documentation|explanation(s)?|man( |-)?page(s)?|manual|note(s)?|readme(.md)?|translation(s)?|java( |-)?doc(s)?|java( |-)?documentation|example(s)?|diagram(s)?|guide(s)?|icon(s)?|doc( |-)?string(s)?|tutorials(s)?|help|man|doc( |-)?string(s)?|desc|copy( |-)?right(s)?|explanation(s)?))[\\s\\S]{0,10}((((^|$|[^a-z\_])((un)?hid(e|es|den)|add(s|ed|ing)?|allow(s|ed|ing)?|buil(t|ds|ing)|calibirat(e|es|ed|ing)|configure|creat(e|es|ing)|deferr(ed|s|ing)?|disabl(e|es|ed|ing)|enhanc(e|es|ed|ing)|extend(s|ed|ing)?|form(ed|s|ing)?|implement(ed|s|ing)?|import(s|ed|ing)?|introduc(e|es|ed|ing)|port(s|ed|ing)?|provid(e|es|ed|ing)|report(s|ed|ing)?|support(s|ed|ing)?|updat(e|es|ed|ing)|upgrad(e|es|ed|ing)))\\s[\\s\\S]{0,50}(ability|configuration|conversion|debug|new|possibility|support|test(s)?|tweak(s)?|mode|option|algorithm(s)?|assertion(s)?|assignment(s)?|class(es)?|code|collection(s)?|conditional(s)?|constant(s)?|constructor(s)?|control|delegate|delegation|design pattern(s)?|error(-| )?code(s)?|exception(s)?|field(s)?|flag(s)?|function(s)?|getter(s)?|guard clause(s)?|hierarch(y|ies)|implementation(s)?|inheritance|inline|interface(s)?|internal|macro(s)?|magic number(s)?|member(s)?|method(s)?|modifier(s)?|null object(s)?|object(s)?|parameter(s)?|patch(es)?|pointer(s)?|polymorphism|quer(y|ies)|reference(s)?|ref(s)?|return type|setter(s)?|static|structure(s)?|sub(-| )?class(es)?|super(-| )?class(es)?|(sub)?(-| )?system(s)?|template(s)?|type(s)?|uninline|variable(s)?|handler|plugin|unit(s)?|contravariant|covariant|action(s)?|queue(s)?|stack(s)?|driver(s)?|storage|tool(s)?|module(s)?|log(s)?|setting(s)?|fall( |-)back(s)?|memory|param(s)?|volatile|file(s)?|generic(s)?|initialization(s)?|public|protected|private|framework|singelton|declaration(s)?|init|destructor(s)?|instances(s)?|primitive(s)?)(^|$|[^a-z\_]))))', '')))

As adaptive\_matches

FROM

`citric-trees-187317.repo\_attributes.commit\_samples\_v2\_tmp`

# Batch 1

#where rand(9746492) < 0.1

# Batch 2

#where rand(79324) < 0.1

group by

repo\_name

, commit

#, subject

, message

, bug\_fix\_regex\_count

, valid\_fix\_regex\_count

, negeted\_bug\_fix\_regex

, bq\_classification

, refactor\_matches

, adaptive\_matches

limit 5000