

# The `emlab` package\*

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## 1 Introduction

This package provides useful macros for software engineering papers.

## 2 Usage

<code>\etal</code>	Use <code>\etal</code> to typeset “et al.” appropriately. We extended the method used by So-and-So <code>\etal~\cite{soandso}</code> . We extended the method used by So-and-So et al. [?].
<code>\ngram</code>	Use <code>\ngram</code> to typeset <i>n</i> -gram appropriately. We built an <code>\ngram\ language</code> model. We built an <i>n</i> -gram language model.
<code>\tfidf</code>	Use <code>\tfidf</code> to typeset tf-idf appropriately. We calculated <code>\tfidf</code> . We calculated tf-idf.
<code>\token{<i>text</i>}</code> <code>\stoken{<i>text</i>}</code>	Use <code>\token</code> , and its small-caps variant <code>\stoken</code> to typeset tokens for use in demonstrating a natural language pipeline. Accuracy was highest for <code>\token{if}</code> and <code>\stoken{Identifier}</code> tokens. Accuracy was highest for <code>\if</code> and <code>\IDENTIFIER</code> tokens.
<code>\researchquestion{<i>text</i>}</code> <code>\RQ{<i>number</i>}</code>	Use <code>\researchquestion</code> to declare a research question. Refer to it inline in text using <code>\RQ</code> . In both cases, you must explicitly provide the research question number. <code>\researchquestion{\RQ{1}: What do we do with 14,374 pairs of stolen underwear?}</code>  <code>\RQ1</code> : What do we do with 14,374 pairs of stolen underwear?  The answer to <code>\RQ1</code> proved to be inconclusive. The answer to <code>\RQ1</code> proved to be inconclusive.
<code>\hassanbox</code>	Wraps text in a box to emphasize a point, such as a research question or a result.

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\*This document corresponds to `emlab` v1.0, dated 2017/04/11.

`\hassanbox{Shigesato Itoi seemed to really like The Beatles}`

Shigesato Itoi seemed to really like The Beatles

### 3 Implementation

`\ngram` It uses a math mode  $n$  to emphasize that  $n$  is a mathematical constant, and not an abbreviation.

```
1 \newcommand{\ngram}{\(\n\)-gram}
```

`\tfidf`

```
2 \newcommand{\tfidf}{tf-idf}
```

`\etal` We could probably go really crazy with the implementation, but this is sufficient for now.

```
3 \newcommand{\etal}{et al.}
```

`\RQ`

```
4 \newcommand{\RQ}[1]{\textbf{RQ#1}}
```

`\researchquestion`

```
5 \newcommand\researchquestion[1]{\begin{quote}#1\end{quote}}
```

`\token, \stoken`

```
6 \newcommand{\token}[1]{\small\framebox{#1}}
7 \newcommand{\stoken}[1]{\token{\textsc{#1}}}
```

`\hassanbox`

```
8 \newcommand{\hassanbox}[1]{%
9   \smallskip%
10  \noindent\framebox{%
11    \begin{minipage}[c]{0.97\linewidth}%
12      \begin{center}%
13        #1\par%
14      \end{center}%
15    \end{minipage}%
16  }%
17  \smallskip%
18 }
```

### Change History

v1.0

General: Initial version . . . . . 1

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Numbers written in italic refer to the page where the corresponding entry is described; numbers underlined refer to the code line of the definition; numbers in roman refer to the code lines where the entry is used.

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<code>\)</code> ..... <i>1</i>		<b>S</b>
	<b>N</b>	<code>\small</code> ..... <i>6</i>
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	<code>\researchquestion{\ttfamily<sub>UU</sub>\char<sub>U</sub>'\{\}\meta<sub>UU</sub>{text}}{\ttfamily<sub>UU</sub>\char<sub>U</sub>'\{\}\meta<sub>UU</sub>{text}}</code> ..... <i>1</i>	<code>\token{\ttfamily<sub>UU</sub>\char<sub>U</sub>'\{\}\meta<sub>UU</sub>{text}}{\ttf</code> ..... <i>1</i>
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