

The Bullet Assistant

Introduction

This program was developed to assist Air Force personnel in writing bullets for EPRs and OPRs by reducing the amount of time it takes to write and condense a bullet point. This was achieved by reducing the time it takes to look up commonly used shorthand and synonyms to action verbs. After a verb is typed, the program will automatically populate related words from a prebuilt CSV file so that the writer has alternate options readily available. When the condense button is clicked, the program will cross-reference the writer's text with a prebuilt shorthand CSV file and automatically replace the writer's text with the corresponding shorthand. Once condensed, the text is automatically copied to the clipboard. Options to change spacing width are also provided.

Dependencies and Installation

Java 8 is required to run the *BulletAssistant.jar* program. The recently released Java version has bugs that affect JavaFX GUI. The folder containing this program's *.jar* file and both *.csv* files can be downloaded and saved anywhere. **Both *.csv* files must be saved in the same folder as this program's *.jar* file.** To run the program, double click the *BulletAssistant.jar* file. The *.csv* files must be formatted so that related words are on the same row, and only one abbreviation is allowed per referenced word.

****For Linux based OS, follow the steps below****

```
sudo apt-get install default-jre
```

```
sudo apt-get install openjfx
```

```
sudo update-alternatives --config java ←Press option 2 for Java 8
```

```
sudo reboot
```

```
java -version ←Should no longer be Java 11
```

Double Click *BulletAssistant.jar* to open ← Opening with "java -jar" will give compile error

Test Case Example

The following are examples of user typed input. The output text is what was copied to the clipboard when the user clicks the “Condense” button.

Input:

Destroyed Hydra intelligence, surveillance, and reconnaissance headquarters; led one thousand Airman into battle with guidance from Master Sergeant Barnes--found \$900 thousand in ammunition

Output:

- Destroyed Hydra ISR HQ; led one thousand Amn into battle w/guidance from MSgt Barnes--found \$900K in ammo

Notes for Debugging, Testing, and Development

Hash tables and self-balancing trees should be used to speed up the time required to search through synonyms and abbreviations. The current setup uses an array of lists for synonyms and a binary tree for abbreviations.

Version 2 Changes:

- Added Linux compatibility
- Added progress bar to track bullet length when typing directly into the box
- Fixed initial double dash bug
- Fixed issue preventing words from being checked if they had a ‘;’ at the end
- Fixed GUI padding
- Added highlighting capability to “Related Words:” suggestion list at the bottom
- Updated README

Additional User Requests:

- Only senior leadership should be able to add to abbreviations list; users can make quarterly requests to add new words if needed
- Application should have a feature that can highlight repeated words, unapproved abbreviations, and commonly misused phrases for proofreading purposes
- Application should only condense enough words to keep empty space to a minimum