

Instructions

Instructions for installing the application

Install on MacOS

1. Go to “releases/application-4.0.0/MacOS”
2. Click “Notes-4.0.0.pkg” and then go through the installation steps presented
3. Done, the Notes application is now installed on your computer.

Demo video for installing the application on MacOS:

https://drive.google.com/file/d/19PlxSILVs5Y_U6G00qB5emIVmRa69cL2/view?usp=sharing

Install on Windows

1. Go to “releases/application-4.0.0/Windows”
2. Click “Notes-4.0.0.exe” to start the installation process. Click “Yes” in the pop up window to allow the installer to make changes.
3. Once installed, the Notes application is located in “C:\Program Files\Notes”.

Demo video for installing the application on Windows:

<https://drive.google.com/file/d/1ZN3kUHZ9548q3wRYtYb6SL6v9yJyqbVe/view?usp=sharing>

Instructions for running the application

Important: Before you run the application, please make sure that you have the web service run first. For instructions about how to run the web service, please see the next section.

1. Run the web service (see the next section for instructions for running the web service)
2. If you want to launch the Notes application by using the console app, then go to the top level of the project repository, and then type “**./launch**”
3. If you have installed the Notes application on your computer, then just open the Notes application to run it
4. If you haven’t installed the application, there are two ways to run the application
 - Install the Notes application first by following the instructions presented in the previous section. Then, open the “Notes” application to run it
 - For MacOS, go to “releases/application-4.0.0/MacOS”, then click “Notes” to run the Notes application.
For Windows, go to “releases/application-4.0.0/Windows/Notes”, then click “Notes.exe” to run the Notes application.

Demo video for running the application:

https://drive.google.com/file/d/1_K7LqWhyvLRzYPwPu4ClR57BpVWvmuZ/view?usp=sharing

Instructions for running the web service

1. If you haven’t installed Docker, please follow these steps to install Docker first:
 - Download and install directly from the Docker website (<https://docs.docker.com/get-docker/>). Make sure to install the correct version for your system architecture

- After the installation is done, open the Docker application
- Go to your terminal and type “**docker version**” to check that Docker is installed and available on your path. If the docker is installed and available on your path, you should see something similar to this:

```
$ docker version
Client: Docker Engine - Community
Version:      20.10.21
API version:  1.41
Go version:   go1.19.3
Git commit:   baeda1f82a
Built:        Tue Oct 25 17:53:02 2022
OS/Arch:     darwin/arm64
Context:      default
Experimental: true

Server: Docker Desktop 4.15.0 (93002)
Engine:
Version:      20.10.21
API version:  1.41 (minimum version 1.12)
Go version:   go1.18.7
Git commit:   3056208
Built:        Tue Oct 25 17:59:41 2022
OS/Arch:     linux/arm64
Experimental: false
containerd:
Version:      1.6.10
GitCommit:    770bd0108c32f3fb5c73ae1264f7e503fe7b2661
runc:
Version:      1.1.4
GitCommit:    v1.1.4-0-g5fd4c4d
docker-init:
Version:      0.19.0
GitCommit:    de40ad0
```

2. After you have the Docker installed and connected (You can connect by open the Docker application), follow these steps to run the web service:

- Open your terminal
- Type “**docker pull anna1119/cs346**”. If the pull is successful, you should see something similar to this (instead of showing “Already exists”, yours should show “Pull complete”):

```
➔ cs346 git:(54-update-releases-folder) docker pull anna1119/cs346
Using default tag: latest
latest: Pulling from anna1119/cs346
38a980f2cc8a: Already exists
de849f1cfbe6: Already exists
a7203ca35e75: Already exists
cfca286516d0: Already exists
Digest: sha256:555a11b896d169bb3ff1148dda3bf68d7fe2cb7dec1de27768f906ed255776e
Status: Downloaded newer image for anna1119/cs346:latest
docker.io/anna1119/cs346:latest
```

- ```

src git:(main) docker run -p 8080:8080 anna1119/cs346

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:: Spring Boot :: (v2.7.9)

2023-04-07 18:30:02.691 INFO 1 --- [main] c.c.webservice.WebServiceApplicationKt : Starting WebServiceApplicati
ionKt using Java 17.0.2 on ebd3a7a608c7 with PID 1 (/app.jar started by root in /)
2023-04-07 18:30:02.697 INFO 1 --- [main] c.c.webservice.WebServiceApplicationKt : No active profile set, fall
ing back to 1 default profile: "default"
2023-04-07 18:30:04.193 INFO 1 --- [main] o.s.b.w.embedded.tomcat.TomcatWebServer : Tomcat initialized with por
t(s): 8080 (http)
2023-04-07 18:30:04.207 INFO 1 --- [main] o.apache.catalina.core.StandardService : Starting service [Tomcat]
2023-04-07 18:30:04.207 INFO 1 --- [main] org.apache.catalina.core.StandardEngine : Starting Servlet engine: [A
pache Tomcat/9.0.71]
2023-04-07 18:30:04.310 INFO 1 --- [main] o.a.c.c.C.[Tomcat].[localhost].[/] : Initializing Spring embedde
d WebApplicationContext
2023-04-07 18:30:04.310 INFO 1 --- [main] w.s.c.ServletWebServerApplicationContext : Root WebApplicationContext:
initialization completed in 1524 ms
2023-04-07 18:30:04.993 INFO 1 --- [main] c.g.c.s.c.DefaultCredentialsProvider : Default credentials provide
r for service account admin-346@cs346-notes-app.iam.gserviceaccount.com
2023-04-07 18:30:04.993 INFO 1 --- [main] c.g.c.s.c.DefaultCredentialsProvider : Scopes in use by default cr
edentials: [https://www.googleapis.com/auth/pubsub, https://www.googleapis.com/auth/spanner.admin, https://www.googleapis.co
m/auth/spanner.data, https://www.googleapis.com/auth/datastore, https://www.googleapis.com/auth/sqlservice.admin, https://ww
w.googleapis.com/auth/devstorage.read_only, https://www.googleapis.com/auth/devstorage.read_write, https://www.googleapis.co
m/auth/cloudruntimeconfig, https://www.googleapis.com/auth/trace.append, https://www.googleapis.com/auth/cloud-platform, ht
tps://www.googleapis.com/auth/cloud-vision, https://www.googleapis.com/auth/bigquery, https://www.googleapis.com/auth/monitor
ing.write]
2023-04-07 18:30:04.994 INFO 1 --- [main] c.g.c.s.a.c.GcpContextAutoConfiguration : The default project ID is c
s346-notes-app
2023-04-07 18:30:05.141 INFO 1 --- [main] o.s.b.w.embedded.tomcat.TomcatWebServer : Tomcat started on port(s):
8080 (http) with context path '/'
2023-04-07 18:30:05.157 INFO 1 --- [main] c.c.webservice.WebServiceApplicationKt : Started WebServiceApplicati
onKt in 3.03 seconds (JVM running for 3.85)
2023-04-07 18:31:59.865 INFO 1 --- [nio-8080-exec-1] o.a.c.c.C.[Tomcat].[localhost].[/] : Initializing Spring Dispatc
herServlet 'dispatcherServlet'
2023-04-07 18:31:59.865 INFO 1 --- [nio-8080-exec-1] o.s.web.servlet.DispatcherServlet : Initializing Servlet 'dispa
tcherServlet'
2023-04-07 18:31:59.868 INFO 1 --- [nio-8080-exec-1] o.s.web.servlet.DispatcherServlet : Completed initialization in
3 ms

```

**Top-level menu bar that lists major functions, and indicates the hotkeys for each feature**

1. In the top-level menu bar, features are put into three categories: Note, Group and Search
2. Click on each category will show a list of features and their corresponding hotkeys.

Demo video for this feature:

<https://drive.google.com/file/d/1g4-cDTSpQs6KQGa-L6lo3nONcA8LK6OC/view?usp=sharing>

## **Toolbar**

1. Click on a specific note (create a note first if there are no notes) and click the editing area to start editing
2. In the editor, you can see the toolbar is enabled. Inside the toolbar, it includes all the tool support for rich text.

Demo video for this feature:

<https://drive.google.com/file/d/1kDzU13m0Jje2LvV4RnbCB5bSeDWI26Pl/view?usp=sharing>

## **Resize window**

1. You can resize the window by dragging the boundaries of the application window
2. As you resize the window, the width of the file list and the width of the toolbar inside the editor are also resized
3. The application window has minimum width and height. Hence, when you resize the window which reaches its minimum width and height, you cannot make it smaller

Demo video for this feature:

[https://drive.google.com/file/d/1mfL4LaZqVCU51mUtaE1xa\\_NbcZTqriYM/view?usp=sharing](https://drive.google.com/file/d/1mfL4LaZqVCU51mUtaE1xa_NbcZTqriYM/view?usp=sharing)

## **Minimize/maximize the window**

1. You can use the minimize/maximize button on the top-left (Mac) or top-right (Windows) to minimize or maximize the window

## **Undo-redo support for text-related tasks**

1. Click on a note and make some changes to its content
2. You can use “Command + Z” (Mac) or “Control + Z” (Windows) to undo tasks.
3. You can use “Command + Y” (Mac) or “Control + Y” (Windows) to undo tasks.

Demo video for this feature:

<https://drive.google.com/file/d/1o2K6BO1NyDi1SQPAoR6Kp4v5QIDeuCvm/view?usp=sharing>

## **Cut-copy-paste text**

1. Choose/create a note and type some text in the editor
2. Select some text
  - For cutting text, you can use the “cut text” tool in the toolbar or use the hotkeys “Command + X” (Mac) or “Control + X” (Windows)
  - For copying text, you can use the “copy text” tool in the toolbar or use the hotkeys “Command + C” (Mac) or “Control + C” (Windows)

- For pasting text, you can use the “paste text” tool in the toolbar or use the hotkeys “Command + V” (Mac) or “Control + V” (Windows)
3. You can put the cut/copied text in this application or other applications. You can also paste the text you copy from other applications to this application as well

Demo video for this feature:

<https://drive.google.com/file/d/1e9H6OqsOkKvsN-mluSzBSXtUV35bio4e/view?usp=sharing>

## **Create note**

1. Click “Note” on the top-level menu bar and click “Add Note” (or use hotkey “Control + N”). This will create a note with the title “New Note” and empty body content.
2. By default, the new note will be added as the last note in the “Notes” section if no groups are selected.
3. If a group or a note under a group is selected, the new note will be added as the last note in that group.
4. If a new note already exists and the user tries to create a second new note, a warning message will show to notify the user that the new note can not be created.

Demo video for creating new note:

[https://drive.google.com/file/d/1R\\_aAvrfB6HOSKvlfhq1e0qspCsR8fuUR/view?usp=sharing](https://drive.google.com/file/d/1R_aAvrfB6HOSKvlfhq1e0qspCsR8fuUR/view?usp=sharing)

## Edit note

**Important:** The first line of the note content will be the title of the note. The content will be saved only after the “Save” button is clicked.

1. Click on a note and its content will show in the text editing area on the right.
2. Click on the text editing area to start editing.
3. The text editor on the right supports [undo-redo](#), [cut-copy-paste](#), [rich text](#), [bulleted lists](#), and [lightweight/heavyweight toggle](#).
4. After finishing editing, the “Save” button above the text editing area must be clicked in order to save the content. If hovering over this button, a tooltip will show which reminds users that “The first line of the note will be set as the title”.
5. Note that the first line of the content can not be empty or blank, otherwise an empty title warning will show up.

Demo video for editing notes:

<https://drive.google.com/file/d/1pXhFrIoGvqrMzqZUua0ZFvZNSGe7Gsae/view?usp=sharing>

## Delete note

There are two ways to delete notes:

1. Right click on a note and choose the “Delete Note” option in the context menu.
2. Click “Note” on the top-level menu bar and select “Delete Note” (or use hotkey “Control + D”).
  - In the confirmation window, select note(s) to delete and click “OK”.  
To select multiple notes, press and hold the Control Key on Windows or Command Key on Mac while selecting.



- The notes in the confirmation window are displayed as its title followed by the date created. If the note is inside a group, the group name is put in brackets and displayed next to the title of the note.

Demo video for deleting notes:

<https://drive.google.com/file/d/1MVjLBYRlR05U6u-akCk0CjhCtC2Aojyl/view?usp=sharing>

## **Group related notes together**

Note: The user will only be able to group notes under the “Notes” section. For notes inside groups, they can use the “move notes between groups functionality”

1. Create some notes under the “Notes” section
2. Click “Note” on the top-level menu bar and click “Group Notes” (or use hotkey “Control + G”)
3. First, in the “Group Notes” confirmation window, select the note(s) you want to group together by clicking on them (you can select multiple notes by holding down the Control Key on Windows or Command Key on Mac)
4. Then, in the “Group Notes” confirmation window. Select the group you want to put those notes in by clicking the dropdown box and selecting the group.
  - If you want to put the selected note(s) in a group that does not exist, then follow the instructions below:
    - Click “Create a new group?” button in the confirmation window
    - In the “Create Group” pop-up window, enter the name of the group (If you enter an empty string or a group name that already exists, then a warning will pop up and you need to enter a unique group name) and click “OK” to create the group

- Once the group is created, click on the dropdown box and select the group you just created
5. Click “OK” to put the selected notes in the selected group

Demo video for this feature:

[https://drive.google.com/file/d/1FICchjmIfvrE2srXAHdLUw5w7PhSH5Ow/view?usp=share\\_link](https://drive.google.com/file/d/1FICchjmIfvrE2srXAHdLUw5w7PhSH5Ow/view?usp=share_link)

## **Add group**

1. Click “Group” on the top-level menu bar and click “Add Group” (or use hotkeys “Alt+A” on Windows or “Option+A” on Mac)
2. In the “Create Group” pop-up window, enter the name of the group you wish to add (If you enter an empty string or a group name that already exists, then a warning will pop up and you will be exited from the pop-up) and click “OK” to create the group

Demo video for this feature:

[https://drive.google.com/file/d/141FmWcg6vr-I4IwO2Zkab8EIIWce52Dq/view?usp=share\\_link](https://drive.google.com/file/d/141FmWcg6vr-I4IwO2Zkab8EIIWce52Dq/view?usp=share_link)

## **Delete group**

1. Click “Group” on the top-level menu bar and click “Delete Group” (or use hotkeys “Alt+D” on Windows or “Option+D” on Mac)
2. In the confirmation window, you can select the group(s) you want to delete by clicking on them. If you want to select multiple groups, you can do so by holding down the Control Key on Windows or Command Key on Mac while selecting.
3. Click “OK” to delete the selected group(s).

Demo video for this feature:

[https://drive.google.com/file/d/1uNLD5hGx65EegTn5sDd2SItpWLEqqIi/view?usp=share\\_link](https://drive.google.com/file/d/1uNLD5hGx65EegTn5sDd2SItpWLEqqIi/view?usp=share_link)

## **Rename group**

1. Click “Group” on the top-level menu bar and click “Rename Group” (or use hotkeys “Alt+R” on Windows or “Option+R” on Mac)
2. In the confirmation window, you can select the group you want to rename by clicking on it. Click “OK” to rename the selected group.
3. In the “Rename Group” pop-up window, enter the name of the group you wish to rename (If you enter an empty string or a group name that already exists, then a warning will pop up and you will be exited from the pop-up) and click “OK” to rename the group

Demo video for this feature:

[https://drive.google.com/file/d/1zA6dtOat2Ch-Q-ltV10-FGs19DT16G2o/view?usp=share\\_link](https://drive.google.com/file/d/1zA6dtOat2Ch-Q-ltV10-FGs19DT16G2o/view?usp=share_link)

## **Move notes between groups**

1. Click “Note” on the top-level menu bar and click “Move Notes” (or use hotkeys “Control + M”)
2. In the confirmation window, you first select the group that you want to move the notes from by clicking on the dropdown list after “from group” and then selecting the group you want
3. Then, you will see the notes in the selected group are listed. If you want to move the notes to a group that does not exist yet, then you need to create that group now by following the steps below:

- Click “Create a new group?” button at the bottom of the confirmation window
  - In the “Create Group” pop-up window, enter the name of the group (If you enter an empty string or a group name that already exists, then a warning will pop up and you need to enter a unique group name) and click “OK” to create the group
  - Once the group is created, you can see this group is listed as one of the options in the “to group” dropdown list
4. Next, you can select the note(s) you want to move by clicking on them. If you want to select multiple notes, you can do so by holding down the Control Key on Windows or Command Key on Mac while selecting
  5. After you finish selecting the notes, you select the group that you want to move the selected notes to. You can do this by clicking on the dropdown list after “to group” and then selecting the group you want
    - If you want to move these notes back to the “Notes” section (i.e., these notes do not belong to any group), you select the “empty” option (i.e., the option without any text)
  6. Click “OK” to move notes

Demo video for this feature:

[https://drive.google.com/file/d/1\\_srdaVVoPxm2A3ULtNWuXTcBCXmBjurp/view?usp=sharing](https://drive.google.com/file/d/1_srdaVVoPxm2A3ULtNWuXTcBCXmBjurp/view?usp=sharing)

## **Display a list of notes by title**

1. On the left of the application, you see that there is a file list.
2. There are two categories in the file list, one is “Groups” and one is “Notes”.

3. For the “Groups” section, it contains all the groups the user created. You can expand the group to see the notes inside it if it has at least one note. The notes are displayed as a list by their titles
4. For the “Notes” section, it contains all the notes that do not belong to any group. The notes are displayed as a list by their titles

### **Sort the list of note by title, modified date or created date**

1. Click “Note” on the top-level menu bar and select “Sort Notes” (or use the hotkey “Alt + S” on Windows or “Option + S” on Mac)
2. A “Sort Setting” confirmation window will pop up. There are three settings: “Sort Notes By”, “Sort Order”, and “Sort Notes Under”. Users can choose different options for each setting:
  - a. Sort Notes By: to sort notes by title, date modified or date created.
  - b. Sort Order: ascending or descending order.
  - c. Sort Notes Under: to sort all notes, all notes under groups, notes under “Notes” section, or notes under a specific group.
3. Click “OK” to perform sorting and the option for each setting will remain the same next time when the “Sort Setting” confirmation window opens.

Demo video for sorting notes:

[https://drive.google.com/file/d/1fepeBrC54SetL2aeW8e2vtW\\_Ox2kV1nk/view?usp=sharing](https://drive.google.com/file/d/1fepeBrC54SetL2aeW8e2vtW_Ox2kV1nk/view?usp=sharing)

### **Search notes by title / body contents and display the matching notes**

1. Click on the search bar to start searching.
2. Type words in the search bar and press enter to search notes by title or by content or both. The default option is to search by both title and content.

3. Users can exit search by clicking the cross button in the search bar.
4. Users can switch between different search options under “Search” on the top-level menu bar. There are three options available: search all, search by title, and search by content. An underline will appear for the currently selected search option. The search bar will show a different border style after choosing a search option to indicate focus, if the search bar is not focused previously. The placeholder text in the search bar will change according to the search option selected.
5. If users just click on the search bar and press enter, the search will not be performed.
6. Once a search is performed, the file list on the left side of the Notes application will update to show a list (or two lists if search all) of notes.

Users can [edit and save notes](#) while other operations are disabled.

Demo video for searching notes:

[https://drive.google.com/file/d/1u\\_EUoPXdB4G4GC0fGyk8ehpKipO2NzNm/view?usp=share\\_link](https://drive.google.com/file/d/1u_EUoPXdB4G4GC0fGyk8ehpKipO2NzNm/view?usp=share_link)

## **Rich text support for the note body**

1. Choose a note with content
2. Click the editing area to start editing
3. Select the text and use the tools in the editor’s toolbar to modify the text and get rich text

Demo Video for this feature:

[https://drive.google.com/file/d/1PtkfF-ZBX92u\\_TIM1nwMUh9CIPzO2fyv/view?usp=sharing](https://drive.google.com/file/d/1PtkfF-ZBX92u_TIM1nwMUh9CIPzO2fyv/view?usp=sharing)

## **Support for bulleted lists**

1. Choose a note with content
2. Click the editing area to start editing
3. Select a block of text that is not a bulleted list and then use the “bullet list” tool in the toolbar to apply the bullet list to that block of text
4. Select a block of text that is a bulleted list, you can see that the “bullet list” tool is shown as chosen to reflect the state of this block of text. Click the “bullet list” tool to remove the bullet list for that block of text

Demo video for this feature:

<https://drive.google.com/file/d/19gDwFe25GHHT28b5yQ380K2EfywWm1SL/view?usp=sharing>

## **Save window size and position on the local system**

1. Open the application
2. Resize the window of the application and move it to the position you want
3. Close and reopen the application
4. You can see that the application window appears with the same size at the same location as it was closed last time

Demo video for this feature:

<https://drive.google.com/file/d/1cLeqVME6cyElwRUHhfkOUHatVZIK0YPg/view?usp=sharing>

## **Data stored remotely and shared across application instances**

(The data is saved to the remote end when the user closes the application)

1. First, open the application on one machine, modify some data (e.g., edit and move some notes or create some groups), and then close the application

2. Then, open the application on another machine, and you can see that the data is shared with this instance of the machine as well

**Important:** Before you run the application on a machine, please make sure that the web service is running. The instructions about how to run the web service are [here](#)

## **Instructions for each additional feature**

### **Lock and unlock notes**

You can lock/unlock a note in one of the following two ways:

(Note: the option will change based on the lock status of the note. For example, if the note is locked, then the option will show as “Unlock Note”)

1. Select a note and then right-click on the selected note to bring up the context menu. Then, then click on “Lock Note” or “Unlock note”
2. Select a note, click on “Note” in the top-level menu bar, and then click “Lock Note” or “Unlock Note”

### **For locking note**

- If the note you want to lock already has a password set for it previously (i.e., you are not locking the note for the first time), then you can directly lock the note by following one of the above two ways.
- Otherwise, if you are locking the note for the first time, then after you click on “Lock Note” in one of the above two ways, you will see a confirmation window popup. In the confirmation window, you need to set the password and verify the password you set. You must fill in “Password” and “Verify” to be able to lock the note and the content for “Password” and “Verify” must match. Otherwise, you will see a warning and you need to re-enter “Password” and “Verify”. If you want, you can input “Password Hint” as



well. This will appear when you try to enter the password to unlock the note next time. Lastly, you click “OK” to set the password

After you successfully lock the note, you can see that the content of the note is hidden and the content shown is changed to “This note is locked. Please unlock it first by right-clicking this note in the file list and clicking “Unlock Note” or clicking “Unlock Note” inside “Note” in the menu bar”. Also, you are not able to edit anything until you unlock this note

### **For unlocking note**

1. You can unlock the note in one of the two ways mentioned above
2. After you click “Unlock Note” in one of the above two ways, you will see a confirmation window popup. If you entered “Password Hint” when you set the password, the hint will be shown.
3. Enter the correct password to unlock the note. If the password is incorrect, you are not able to unlock the note (The application does not support “forget and reset password”)

Demo video for this feature:

[https://drive.google.com/file/d/1k7uD-92cCBu-IbN9xQGFrAl1WPL7nPCK/view?usp=share\\_link](https://drive.google.com/file/d/1k7uD-92cCBu-IbN9xQGFrAl1WPL7nPCK/view?usp=share_link)

### **Recover 5 most recently deleted notes**

1. Click “Note” on the top-level menu bar and click “Recover Notes” (or use hotkeys “Ctrl+R” on Windows or “Command+R” on Mac)
2. In the confirmation window, you can view the 5 most recently deleted notes and select the note(s) you want to recover by clicking on them. If you want

to select multiple notes, you can do so by holding down the Control Key on Windows or Command Key on Mac while selecting.

3. Click “OK” to recover the selected note(s). These note(s) will return to the group they were in with their original contents at the time of deletion.

Demo video for this feature:

[https://drive.google.com/file/d/1kG9cnxeNfN1orkPAdF\\_FPbCy-yvm8Y7F/view?usp=share\\_link](https://drive.google.com/file/d/1kG9cnxeNfN1orkPAdF_FPbCy-yvm8Y7F/view?usp=share_link)

## **Lightweight/heavyweight feature toggle**

1. Click on the switch button above the text editor to switch between lightweight or heavyweight mode. The default is heavyweight mode which means all tools in the editor are available. Under lightweight mode, only a limited number of tools are available.
2. Another way to toggle between the two different modes are to click “View” on the top-level menu bar and select “Toggle lightweight mode” (or using the hotkey “Alt + L” on Windows or “Option + L” on Mac)

Demo video for this feature:

[https://drive.google.com/file/d/1H1JDv vx-P4pxJ4c4\\_UFuXAYTwU8Rsa3f/view?usp=share\\_link](https://drive.google.com/file/d/1H1JDv vx-P4pxJ4c4_UFuXAYTwU8Rsa3f/view?usp=share_link)