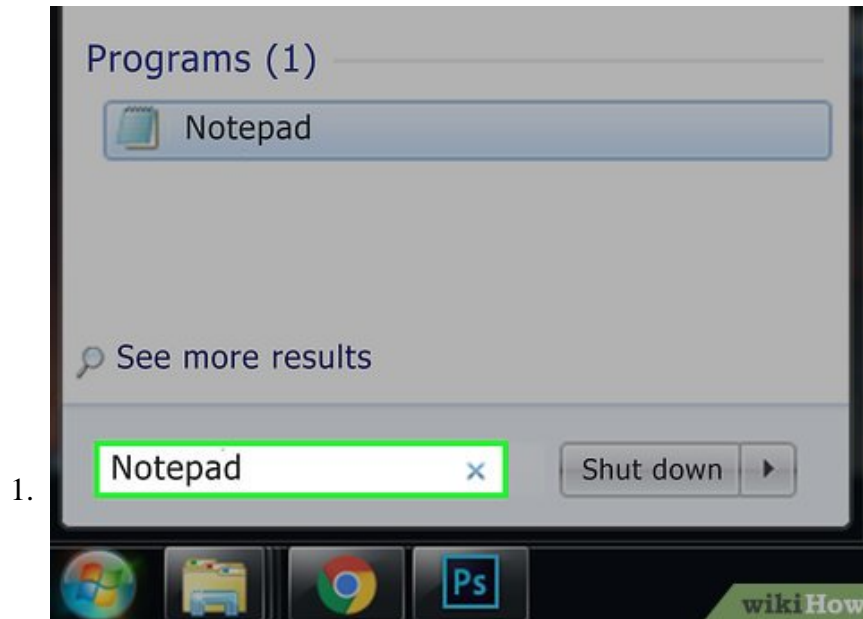


How to Write a Batch File

This wikiHow teaches you how to write and save a basic batch file on a Windows computer. A batch file contains a series of DOS (Windows language) commands, and is commonly written to automate frequently performed tasks such as moving...

Part 1 of 2:

Learning Batch Basics



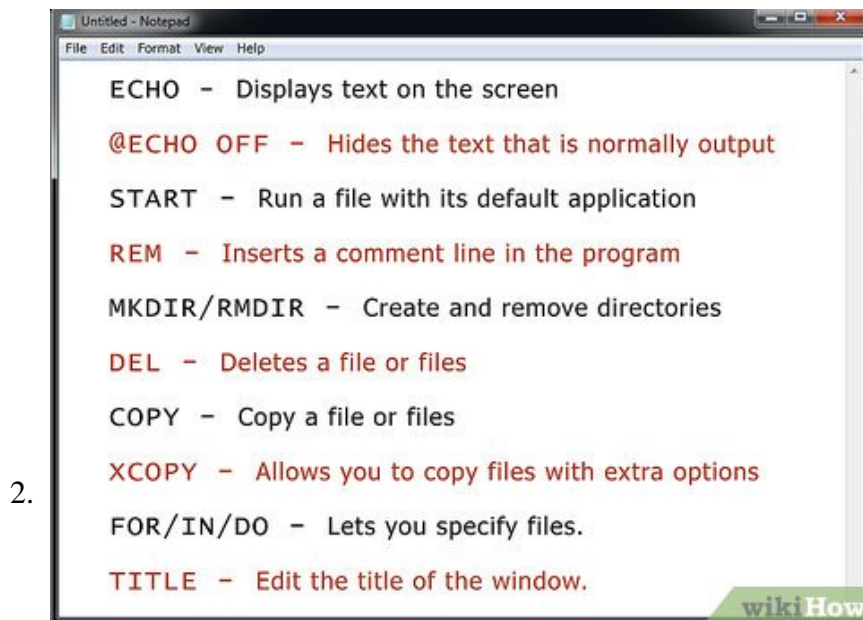
1.

Open Notepad. Notepad allows you to create code as a text file and then save it when you're done as a batch file. You can open Notepad by opening **Start**



, typing in `Notepad`, and clicking the blue **Notepad** app icon at the top of the menu.

1. Notepad is commonly used to convert text files into batch files, but you can write your batch file's text virtually anywhere.

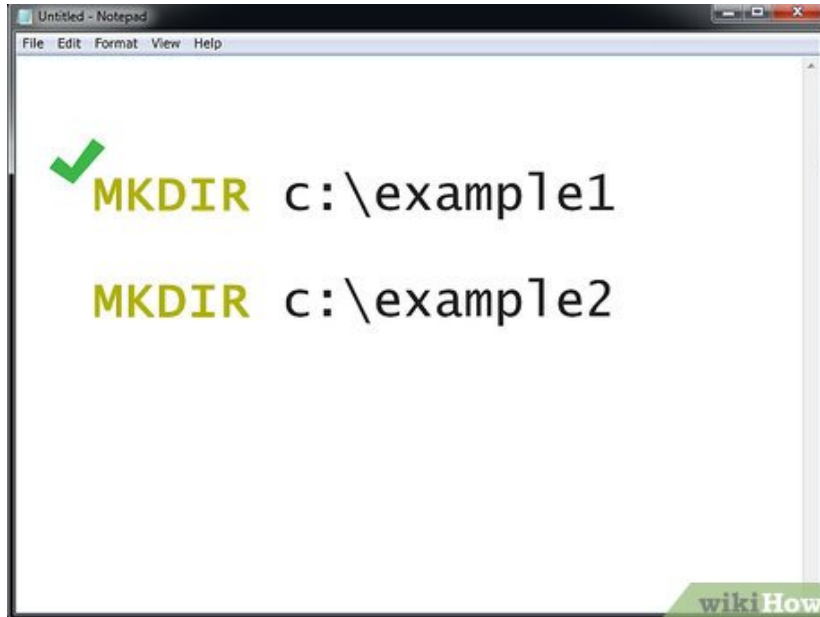


Learn some basic batch commands. Batch files run a series of DOS commands, so the commands that you can use are similar to DOS commands. Some of the more important ones include:

1. `ECHO` - Displays text on the screen
2. `@ECHO OFF` - Hides the text that is normally output

3. `START` - Run a file with its default application
4. `REM` - Inserts a comment line in the program
5. `MKDIR/RMDIR` - Create and remove directories
6. `DEL` - Deletes a file or files
7. `COPY` - Copy a file or files
8. `XCOPY` - Allows you to copy files with extra options
9. `FOR/IN/DO` - This command lets you specify files.
10. `TITLE` - Edit the title of the window. ^[1]

3.



Write a program to create a directory. One of the easiest ways to learn how to create batch files is to focus on doing basic tasks first. For example, you can use a batch file to quickly create multiple directories:^[2]

```
MKDIR c:\example1 MKDIR c:\example2
```

4.

```

@ECHO OFF
XCOPY c:\original
c:\backupfolder /m /e /y
    
```

↑
copies over files from the "original" folder to "backupfolder" folder ✓

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Write the code to make a basic backup program. Batch files are great for running multiple commands, especially if you configure it to be able to run multiple times. With the XCOPY command, you can make a batch file that copies files from select folders to a backup folder, only overwriting files that have been updated since the last copy:

```
@ECHO OFF XCOPY c:\original c:\backupfolder /m /e /y
```

1. This copies over files from the folder "original" to the folder "backupfolder". You can replace these with the paths to the folders you want. /m specifies that only updated files will be copied, /e specifies that all subdirectories in the listed directory will be copied, and /y keeps the confirmation message appearing every time a file is overwritten.

5.

```

@ECHO OFF
cd c:\source
REM This is the location of the files that you
REM want to sort
FOR %%f IN (*.doc *.txt) DO XCOPY c:\source\
"%%f" c:\text /m /y
REM This moves any files with a .doc or
REM .txt extension from c:\source to c:\text
REM %%f is a variable
FOR %%f IN (*.jpg *.png *.bmp) DO XCOPY
C:\source\%%f c:\images /m /y
REM This moves any files with a .jpg, .png,
REM or .bmp extension from c:\source to c:\images
    
```

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Write a more advanced backup program. While simply copying the files from one folder to another is nice, what if you want to do a little sorting at the same time? That's where the FOR/IN/DO command comes in. You can use that command to tell a file where to go depending on the extension:

```
@ECHO OFF cd c:source
REM This is the location of the files that you want to sort FOR %%f IN
(*.doc *.txt) DO XCOPY c:source"%%f" c:text /m /y
REM This moves any files with a .doc or
REM .txt extension from c:source to c:text REM %%f is a variable FOR %%
f IN (*.jpg *.png *.bmp) DO XCOPY C:source"%%f" c:images /m /y
REM This moves any files with a .jpg, .png,
REM or .bmp extension from c:source to c:images
```

6. **Display some text.** If you want to know what is happening in your batch file but don't want to see all the commands, you could program the batch file to print some text that explains what the batch file does. You can print text with ECHO. For example:

```
@ECHO OFF MKDIR c:example1 ECHO Created directory example1
```

1. You can change the color of the output with COLOR bf, where b is the background and f is the foreground color, both a hexadecimal number. Following colors are possible: NumberColorNumberColor0

black

8

dark grey

1

dark blue

9

blue

2

dark green

a

green

3

dark turquoise

b

turquoise

4

dark red

c

red

5

dark magenta

d

magenta

6

dark yellow

e

yellow

7

light grey

f

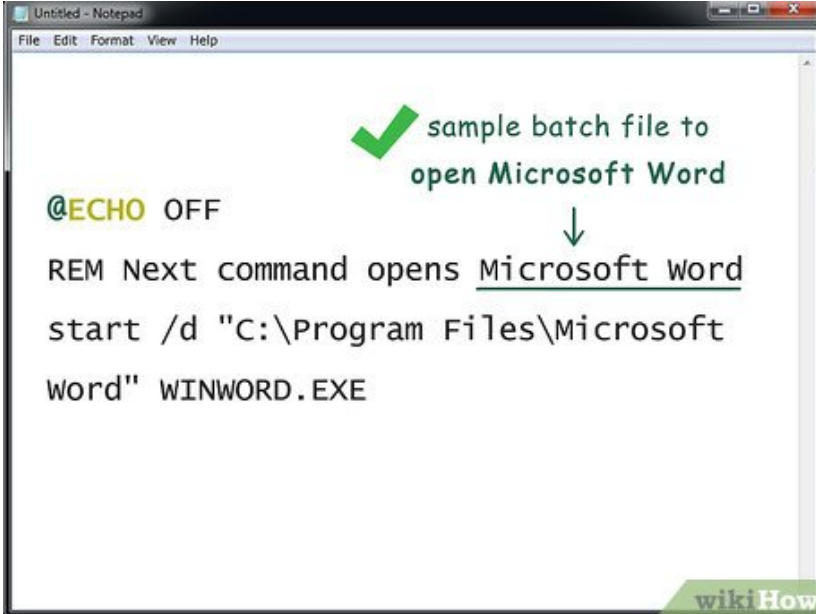
white

2. For example, red text on a dark green background would be displayed with

```
COLOR 2c
```

3. You need run the batch file from the command line to see the text, because else the window will close too fast to actually read the text you printed.

7.



```

@ECHO OFF
REM Next command opens Microsoft Word
start /d "C:\Program Files\Microsoft
Word" WINWORD.EXE

```

Experiment with different batch commands. If you want inspiration, you can check out the sample batch text at the end of this article.

Score
0 / 0

Part 1 Quiz

If you want to add a section to your batch code that only copies updated files, what should you add to the code?

/m

That's right! Adding the /m function will ensure only updated files are copied. Using /m in a basic program will allow your batch file to efficiently back up your data. Read on for another quiz question.

/e

Not quite! The /e function won't work to keep only updated files. Instead, use /e to specify that all your subdirectories in any listed directory should be copied. Choose another answer!

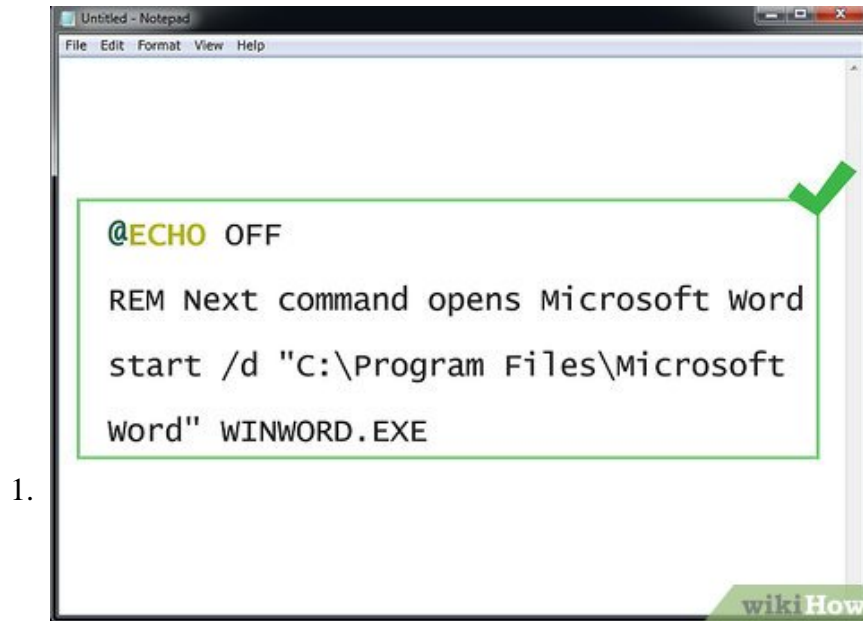
/y

Try again! Using /y won't limit your backups to only updated files. Instead, you can insert /y into your batch file to allow the confirmation message to pop up each time a file is overwritten. Try another answer...

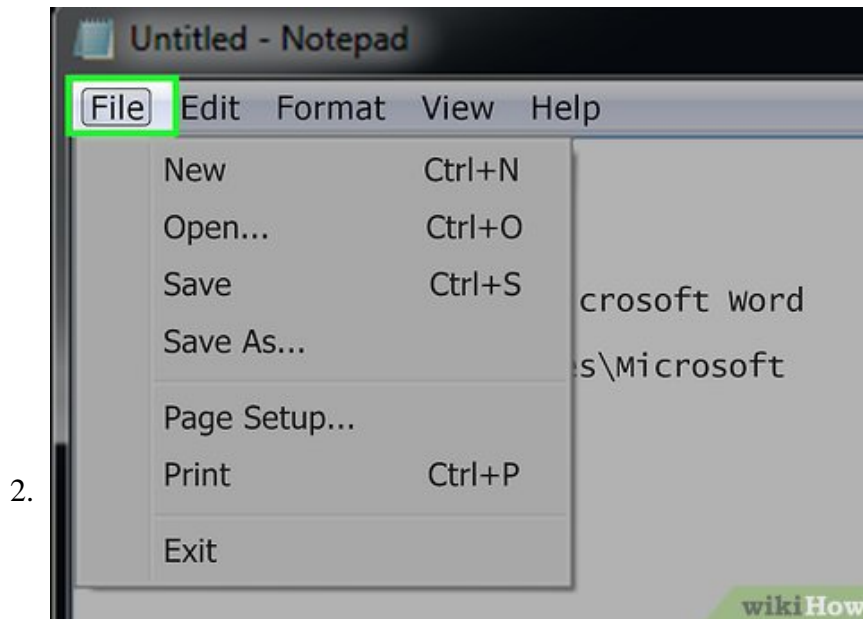
Want more quizzes?
Keep testing yourself!

Part 2 of 2:

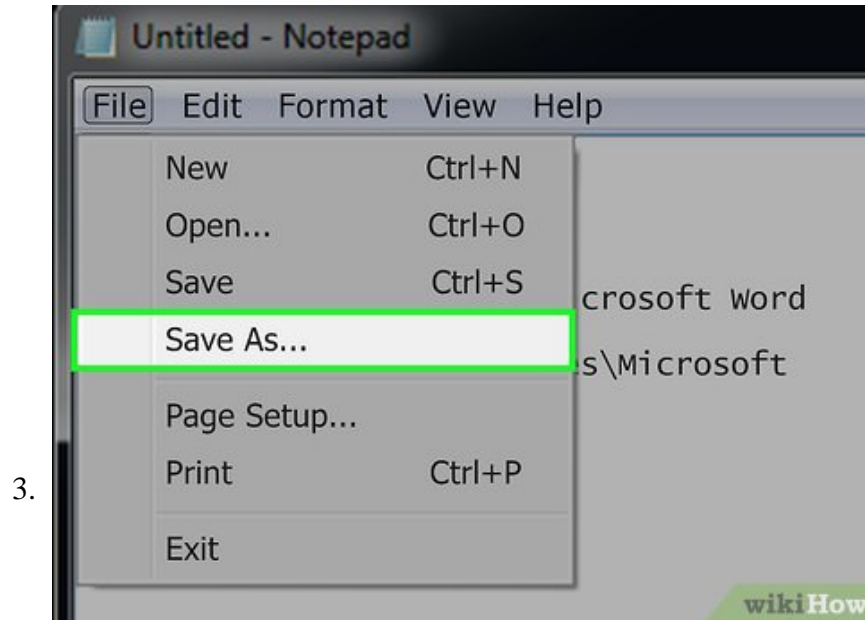
Saving the Batch File



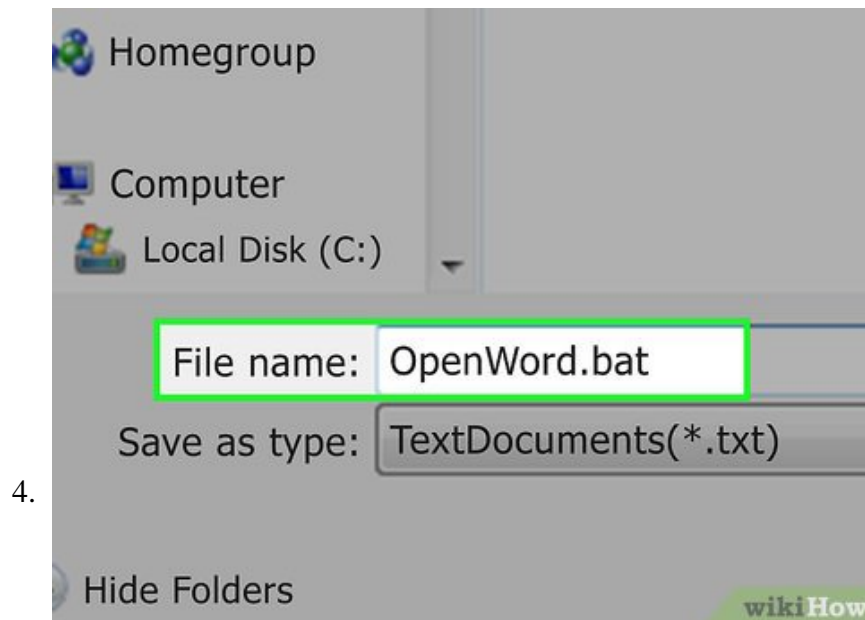
Finish entering your batch file's text. Once you've completed and proofread your batch file, you can proceed with saving it as an executable file.



Click **File**. It's in the top-left corner of the Notepad window. A drop-down menu will appear.

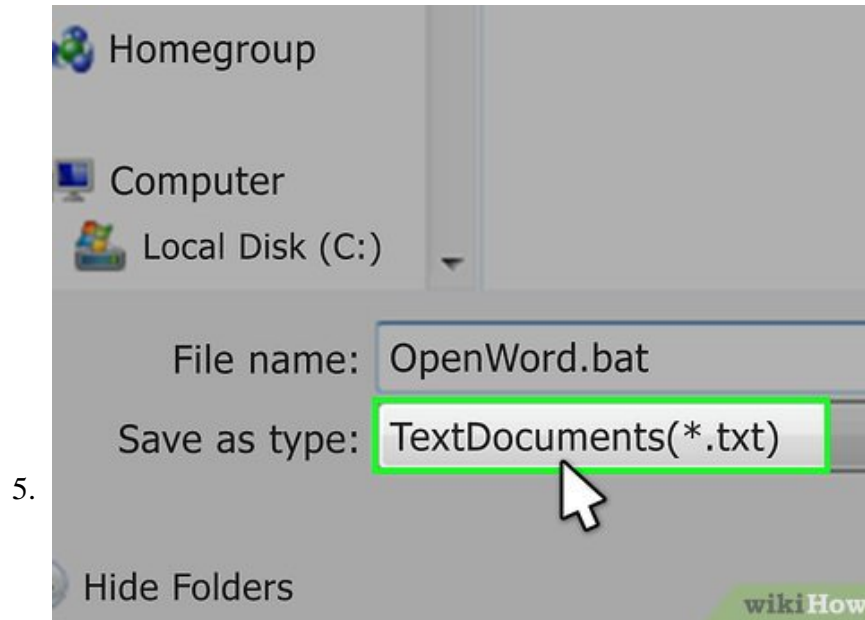


Click **Save As...**. This option is in the **File** drop-down menu. Clicking it prompts the Save As window to open.

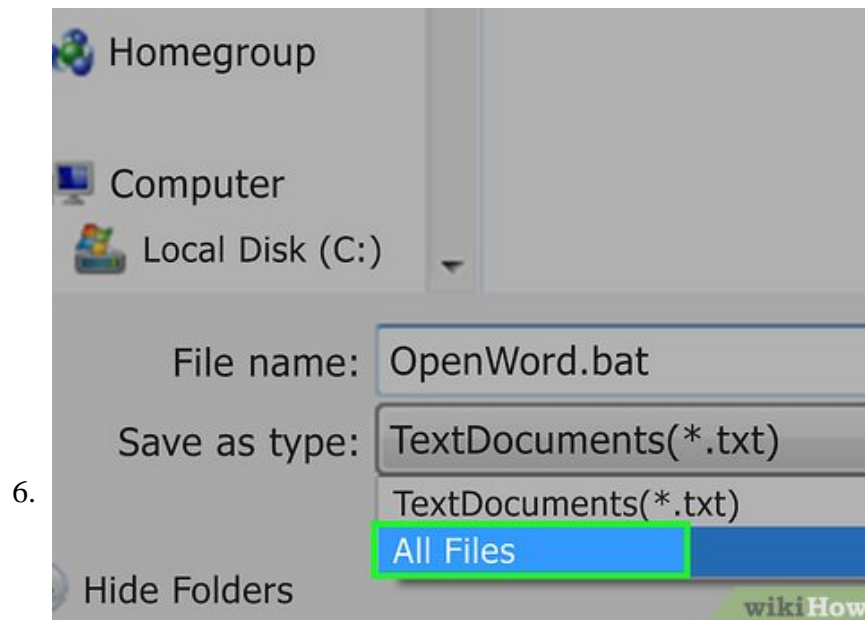


Enter a name and the ".bat" extension. In the "File name" text box, type in whatever you want to name your program followed by `.bat`.

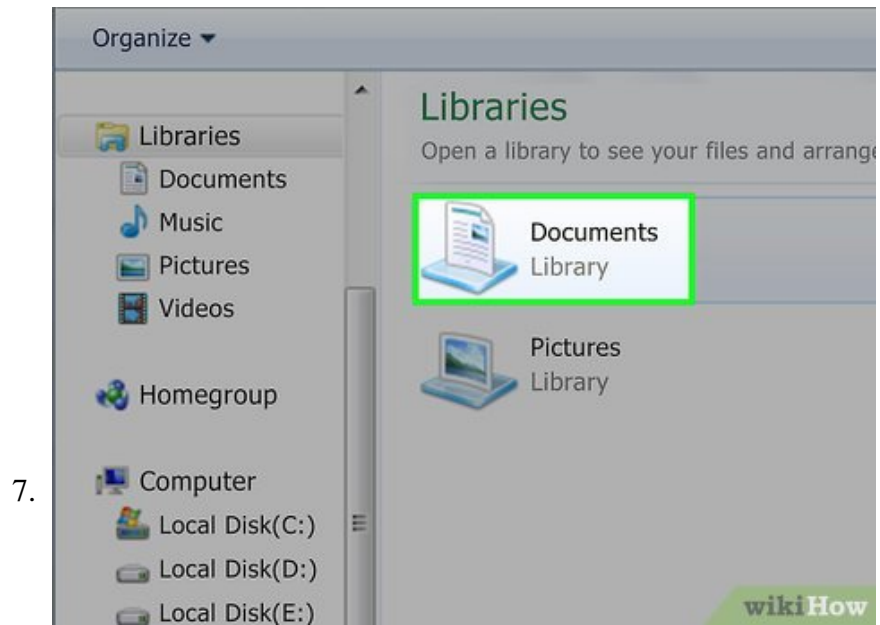
1. For a program named "Backup", for example, you'd type in `Backup.bat` here.



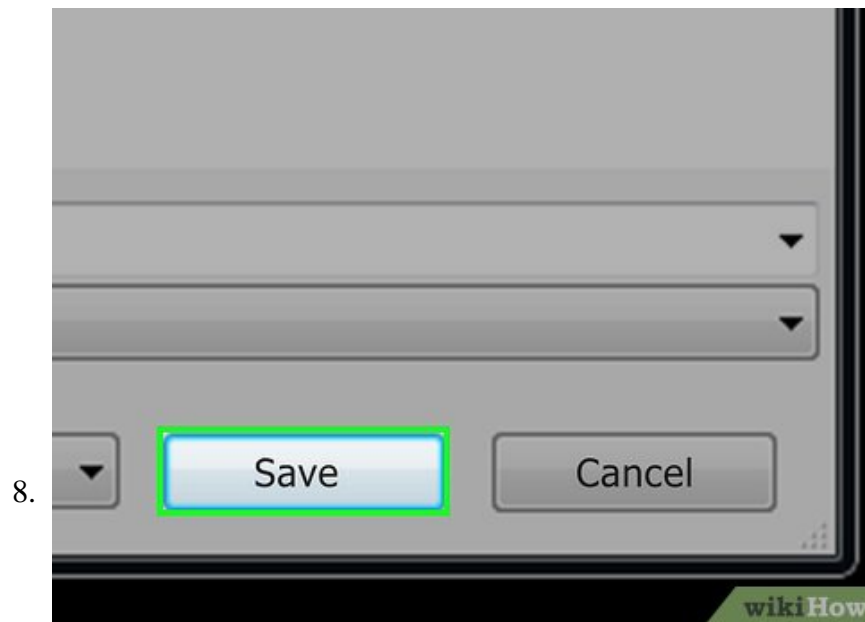
Click the "Save as type" drop-down box. You'll find it near the bottom of the Save As window. A drop-down menu will appear.



Click **All Files**. It's in the drop-down menu. This will allow your file to be saved as whatever its extension is (in this case, ".bat").

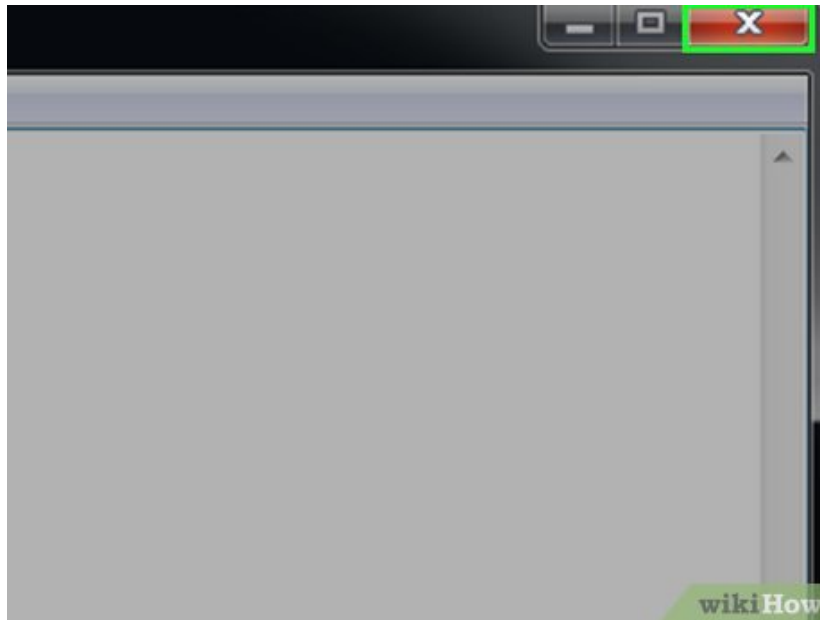


Select a save location. Click a folder on the left side of the window (e.g., **Desktop**) to do so.



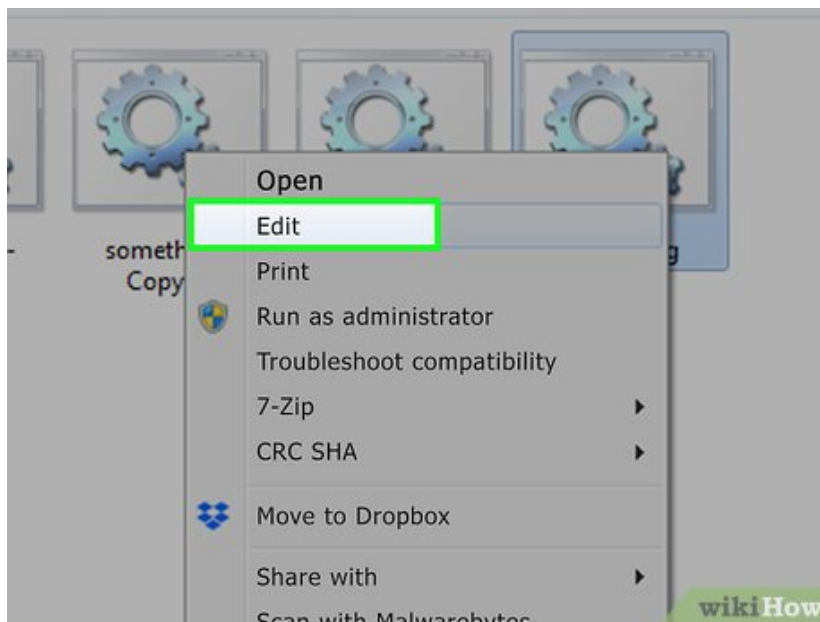
Click **Save**. It's in the bottom-right corner of the Save As window. The window will close.

9.



Close your Notepad file. It will be saved as a batch file in your selected location.

10.



Edit the batch file's contents. At any time, you can right-click your batch file and click **Edit** in the resulting drop-down menu. This will open the batch file as a Notepad document; at this point, you can make any changes and then save the file by pressing Ctrl + S.

1. The changes will immediately be reflected when you run the batch file.

Score
0 / 0

Part 2 Quiz

Why should you save your batch file as a .bat extension?

A .bat extension preserves your batch file as the text in which you wrote it.

Not exactly! Choosing a .bat extension won't keep your notepad document as a text file. If you are not finished writing your batch file, you can save the document as a .txt extension, which will keep the document as text. Click on another answer to find the right one...

A .bat extension allows your notepad file to become a batch file.

Yes! When you're finished writing your batch file, switch the extension to .bat instead of .txt. This converts your document to a batch file once it's saved under "All Files." Read on for another quiz question.

Using a .bat extension is the only way to save your document under "All Files."

Nope! You can save your batch file under the default option of the "Save as Type" dropdown menu. However, if you don't convert the drop down option to "All Files," you typically won't be able to save your document as a batch file. Guess again!

Want more quizzes?
Keep testing yourself!

Sample Batch File

Picture 18 of How to Write a Batch File

Sample Batch File

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