Text Objects

Goal:

The goal of this exercise is to familiarize yourself with Vim's text objects.

Instructions:

Open the textobjectspractice.txt file

First, start a command line session on your local machine. Next, use vim to open the "textobjectspractice.txt" file that came in the course downloads. To do that, navigate to the location of the file. Remember this could be different for you depending on where you extracted the contents of the file. This example assumes the course download was saved into your Downloads folder and extracted from there.

```
cd Downloads
cd vimclass
vim textobjectspractice.txt
```

Word Objects

Position your cursor somewhere in the word "Time" on the first line. For example, you could search forward to the nearest "i" with **`fi`**. Now, delete the word with **`daw`**. Notice how the entire word is deleted. This is different than deleting a motion with **`dw`**.

Next change the word "Traveller" to "tourist". To do that use **`ciw`** for change inner word and then type "tourist" and press **`<Escape>`** to return to normal mode.

Block Object ( )

Position your cursor to the opening parenthesis by typing **`w`**. Now change the text within the parentheses to read "as we will call him." To do that type **`ci(`** or **`ci)`**. This allows you to change the block of text within the parentheses. Notice how your cursor is placed inside the parenthesis. Now type "as we will call him" and press **`<Escape>`** to return to normal mode.

Now the first line of the document looks like this:

```
The tourist (as we will call him) was expounding.
```

Move to this line in the file and place your cursor anywhere on or within the parentheses:

```
print("The weatherman said, 'This weekend will be warm,' but that was a lie.")
```

One way to do that would be to forward search for the opening parenthesis: **/(<ENTER>**. Next delete this entire bit of text with a 3 character command: *("The weatherman said, 'This weekend will be warm,' but that was a lie.")* That command is **da(** or **da)**.

Quoted Strings

Position your cursor on the next line and place it anywhere within the double quotes. (You can use **/"<ENTER>**, for example.) Change this line:

```
print("The weatherman said, 'This weekend will be warm,' but that was a lie.")
```

To read:

```
print("It was cold!")
```

To do so, type **ci"** and then enter "It was cold!" and finally hit the **<Escape>** key to return to normal mode.

Next, move to the next line, but this time change what appears within the single quotes from 'This weekend will be warm,' to 'It is hot outside,'. Perform a forward search with **/'<ENTER>** and then make the change with **ci'**. Type "It is hot outside," and then hit the **<Escape>** key to return to normal mode.

Block Object [ ]

Quickly delete all the contents within the brackets. This is how the text looks before:

```
scripts=[ 'bin/backup',
          'bin/backup-all',
          'bin/backup-db-only',
          'bin/backup-files-only' ]
```

This is how it looks after your deletion:

```
scripts=[]
```

To do that position your cursor anywhere with the brackets. For example, you could use a forward search for "bin": **/bin<ENTER>**. Next, use **di[** or **di]** to delete everything within the bracketed block.

Block Object < >

Move your cursor to the following line. You can use **jj**.

```
<yank_me>
```

Now, place the text within the < > block into the i register. Type **"iyi>** or **"iyi<**. Confirm the text "yank_me" is in the **"i** register with **:reg i<ENTER>**.

Now, place the the text "<yank_me>" including the angle brackets into the **"a** register. Do that with **"aya<** or **"aya>**. Confirm the text "<yank_me>" is in the **"a** register with **:reg a<ENTER>**.

Tag Objects

On the following line change the text "Linux Training Academy" to "LTA". Before your edit:

```
<p><a href="https://linuxtrainingacademy.com">Linux Training Academy</a></p>
```

After your edit:

```
<p><a href="https://linuxtrainingacademy.com">LTA</a></p>
```

Notice the text is inside an <a> HTML tag. To change that text, position your cursor anywhere within the <a> tag. You could type **/h<ENTER>**, for example. Now type **cit**, which stands for change inside tag, and type **LTA<ESCAPE>**.

The next section of text is XML. It looks like this:

```
<?xml version="1.0" encoding="UTF-8"?>
<CATALOG>
  <CD>
    <TITLE>Jazz At Massey Hall</TITLE>
    <ARTIST>The Quintet</ARTIST>
  </CD>
  <CD>
    <TITLE>Blue Train</TITLE>
    <ARTIST>John Coltrane</ARTIST>
  </CD>
  <CD>
    <TITLE>Saxophone Colossus</TITLE>
    <ARTIST>Sonny Rollins</ARTIST>
  </CD>
</CATALOG>
```

You're goal is to delete the entire entry for the first CD titled "Jazz At Massey Hall" in the CATALOG. After your edit, the text will look like this:

```
<?xml version="1.0" encoding="UTF-8"?>
<CATALOG>
  <CD>
    <TITLE>Blue Train</TITLE>
    <ARTIST>John Coltrane</ARTIST>
  </CD>
  <CD>
    <TITLE>Saxophone Colossus</TITLE>
    <ARTIST>Sonny Rollins</ARTIST>
  </CD>
</CATALOG>
```

To delete the <CD> tag position your cursor under the <CD> or </CD> that surrounds the "Jazz At Massey Hall" entry. Then type **dat**, which stands for delete a tag, to remove that entry. (NOTE: If you position your cursor else where you will delete one of the nested tags such as <TITLE> or <ARTIST> instead of the entire <CD> tag.)

Block Object { }

Let's say you want to change this block of text from:

```
musicians = {
  'Charlie Parker': 'alto sax',
  'John Coltrane': 'tenor sax',
  'Sonny Rollins': 'tenor sax'
}
```

To:

```
musicians = { }
```

To do that place your cursor anywhere in the { } block. You could perform a forward search to "alto", for example. **/alto<ENTER>**. Delete that block with **di{** or **di}**. Now your cursor is placed under "}" are you are left with this:

```
musicians = {
}
```

You can move your cursor to the line above with **k** and then join the two lines with **J**.

Sentence Objects

Yank the next sentence of text into the **"s** register. Position your cursor somewhere in this sentence:

```
Praesent rutrum purus ultricies, dignissim massa id, elementum felis.
```

Notice how this sentence isn't in a real language. Remember that vim is looking for text object boundaries, not what is in those boundaries. A sentence is defined as ending at a '.', '!' or '?' followed by either the end of a line, or by a space or tab.

To yank this sentence into the **"s** register, type **"syas**. Confirm the sentence is in the **"s** register with **:reg s<ENTER>**.

Paragraph Objects

Now delete the entire paragraph with **dap**.

Exit out of vim

If you want to abandon your changes so you can try this practice exercise again, use **:q!<ENTER>**.