

Assignment 2.3

There were three main areas of concern in my reference monitor. The first was to account for negative offset. I needed to add a part to my program that raised a `RepyArgumentError` when confronted with a negative offset during a write operation, which is invalid. I did this like so in my write function:

```
if offset<0:
    raise RepyArgumentError()
```

Secondly, I needed to account for when people tried to write outside the EOF. To do so, I needed to keep track of where the EOF file was. I did this through initializing the size of the eof when opened to the size of the current file:

```
initial_eof = len(self.LPfile.readat(None, 0))
self.eof = initial_eof
self.prev_eof = initial_eof
```

This was done in the `__init__` function

After this, I added this to my write function:

```
if offset>self.eof:
    raise SeekPastEndOfFileError()
```

This ensured that if an offset out of the EOF was attempted, this would result in the proper `SeekPastEndOfFileError`.

Another aspect of this was adding the following to the undo function. This ensured that if an undo was completed, that the current EOF reverted to the old EOF marker:

```
self.eof = self.prev_eof
```

Finally, I had to make sure that a `FileClosed Error` was thrown when operations were attempted after the file had been closed:

```
if self.closed:
    raise FileClosedError("File is closed")
```

I added the following to the `__init__` to keep track of whether the file was closed or not. When the file was first opened, it starts off as "False".

```
self.closed = False
```