Exercise11
S3 Versioning

1. Login to your IAM user
2. Create an S3 bucket, give any name, check ACLs enabled (under Object Ownership), uncheck *Block all public access,* check *I acknowledge that the current settings might result in this bucket and the objects within becoming public.,* disable *Bucket key,* click *Create bucket*
3. Create a text file and write a line of some text
4. Drag and drop the text file in your bucket, press Upload
5. Click your text file in the bucket, go to Permissions tab, Edit Access Control Lists (ACLs), check *Read* for the *Objects* for *Everyone (pubic access),* check *I understand the effects of these changes on this object.,* press *Save changes*.
6. Click the Object URL in a new tab. You can see the content. Take a snapshot (with your IAM username).
7. Go to Versions tab of your text file. You will see there are no versions of your file. Click Enable Bucket Versioning. Close the tab (in your browser), click the object in a new tab again. Now you will see the first version of your file. [null ID means the object was created before versioning] Take a snapshot (with your IAM username).
8. Edit your text file (in your computer) and add another line of text. Upload this (edited) file again in the bucket.
9. Click the object in a new tab, go to versions tab. Now you will see a new version of the file (that has a version ID). Take a snapshot (with your IAM username).
10. Edit your text file (in your computer) and add another line (third line) of text. Upload this (edited) file again in the bucket.
11. Click the object in a new tab, go to versions tab. Now you will see three versions of your file (including the one with null version ID). Take a snapshot (with your IAM username).
12. Click the first version (with null ID) and then click the Object URL. You should be able to see the original content (prior to uploading it). Now click the second version and then the Object URL. You will see an error (Access Denied) message. This is because every version of every object needs to be defined for public access if you want to grant public anonymous access to that object. Grant read access to this version (as you did for the first version), click the Object URL to see the content. Take a snapshot (with your IAM username).
13. Go back to your bucket. The object that you see now in it is the latest version. Go ahead and grant read access to it as well. Click the Object URL to see the content. Take a snapshot (with your IAM username).
14. Delete the object. Go back to your bucket. You will not see any object (no brainer, right!) Wrong!
15. Enable the Show Versions toggle. Now you will see the three versions (along with an additional (special) object version, Delete marker). So the "delete" deleted only the front view. The object (and its versions) are still there in the backend. Take a snapshot (with your IAM username too).
16. The Delete marker hides the object from view. If someone accidentally deleted the object (from the front view), you need to delete the delete marker to bring the object back to visibility again.). Go ahead and delete the delete marker. Now turn off the Show versions toggle. You should see only the latest version of your object. Take a snapshot (with your IAM username).
17. How to (actually) delete an object version? Turn on the show versions again. Select the second version and click delete. Now you will be asked to type permanently delete. What do you think this signifies? This helps in preventing accidental deletion. Now you should see only the first and the third versions (while the show versions is turned on). Take a snapshot (with your IAM username).
18. Upload all the screenshots from the above steps as indicated. **No points will be awarded if the IAM username is not there in a snapshot. No exceptions!**
19. **Cleanup:**
    a. Empty the bucket
    b. Delete the bucket