# Overview

Previously, we have seen how to create a website using an IaaS method, using a Linux virtual machine. This method is excellent if we want to have a dynamic website, horizontal scaling and so on. The problem is that it requires a level of knowledge many don’t have. An alternative is to use a simple S3 bucket and put our website into it. We can then make the website available to the Internet. Only static websites work this way – no PHP or MySQL. The upsite however is that it is cheap and simple to make.

This lab is a modified version of the AWS instructions found at <https://docs.aws.amazon.com/AmazonS3/latest/userguide/HostingWebsiteOnS3Setup.html>

# Aim

The aim of this lab is to make a static website in an S3 bucket.

# Before you start

There are 2 html files to download from blackboard before you start:

Index.html – the first web page on your website

error.html – an error web page

Download both to local storage (e.g. your hard disk)

# Log in to AWS Academy

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| Log into the AWS academy at <https://www.awsacademy.com/LMS_Login>  Remember your login name is your email address, with .awsacademy at the end  e.g. [12345678@tafe.wa.edu.au.awsacademy](mailto:12345678@tafe.wa.edu.au.awsacademy)  The password was the one you set up ready for week 3 |  |
| Connect to the “AWS Academy Learner Lab – Foundation Services [4668]” course |  |
| Select “Modules” |  |
| Select “Learner Lab Foundational Services” |  |
| Select “Start Lab”  This step might take a few seconds to a few minutes |  |
| Click on AWS to get to the Management Console.  We are now ready to start |  |

# Creating the S3 bucket

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| Under AWS Services, select “All Services” to open all of the AWS services available. |  |
| Navigate down to “Storage” and select S3 |  |
| Select “Create Bucket” |  |
| In the bucket name, use the following name  Firstnamelatsname.com  e.g. peterowen.com  If the bucket name is taken, you will need to add numbers after your name until a unique name is created  Set the region to “US East”, as we don’t have permission to create buckets in Australia |  |
| For now, leave the security settings at default. |  |
| Ignore the other settings, and select “Create Bucket” |  |
| You should now see your newly created bucket in the bucket list. |  |

# Enable static website hosting

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| You should now see your bucket in your bucket list. We want to configure it further.  Click hyperlink name of your bucket, to access further configuration options. |  |
| Choose “Properties” |  |
| Scroll down to “Static website hosting” and select “Edit” |  |
| Under “Static website hosting” select “Enable” |  |
| Leave the “Hosting type” as “Host a static website” |  |
| Enter the file names for our web pages. We have stuck with the default names, but they still need to be typed in.  Index document: index.html  Error document: error.html |  |
| Select “Save Changes” |  |
| Back under the S3 bucket, at the bottom of the page, you will see a “Bucket website endpoint”. We don’t need it yet, but copy the URL into notepad for later. This is where we will access our web page. |  |

# Edit “Block Public Access” settings

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| In your bucket, select “Permissions” |  |
| Under “Block public access” select Edit |  |
| Untick “Block all public access”  We want people to see our website over the Internet, and not be blocked.  We could have done this during bucket creation, it was done this way to show an alternative to bucket security |  |
| Select “Save changes” |  |
| Confirm when asked |  |

# Add a bucket policy that makes your bucket content publicly available

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| We need to change the policy of our bucket to allow web access.  Under “Permissions”, scroll down to “Bucket Policy”  Select “Edit” |  |
| Copy and paste the text to the right into the bucket policy window (including the { and } | {  "Version": "2012-10-17",  "Statement": [  {  "Sid": "PublicReadGetObject",  "Effect": "Allow",  "Principal": "\*",  "Action": [  "s3:GetObject"  ],  "Resource": [  "arn:aws:s3:::Bucket-Name/\*"  ]  }  ]  } |

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| Update the “Resource” to the name of the bucket  E.g. the resource peterowen.com would look like the right  Yours will have your bucket name instead | "Resource": [  "arn:aws:s3:::peterowen.com/\*" |
| Your configuration should look similar to the right.  Check it, and select “Save changes” |  |

# Upload the website

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| We now need to upload our website.  Click on “Objects” |  |
| Click on “Upload” |  |
| Drag and drop index.html and error.html into your bucket  Select “Upload” |  |
| You should now see your 2 files in the bucket |  |

# View the website

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| Earlier, you copied the website web address into notepad. Locate it. |  |
| Copy the URL onto a browser. If everything works, you should see your website |  |
| Try your error document by putting in a wrong URL. Do this by entering /abc at the end of the URL | <http://peterowen.com.s3-website-us-east-1.amazonaws.com/abc> |
| You are now hosting a static website from a cheap S3 bucket. |  |

# Display a photo on your website

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| Download a photo from the web or find a photo from your phone and copy it to your PC |  |
| Give your photo a sensible name like photo1.jpg and then upload the photo to your S3 bucket |  |
| Edit your index.html file on your PC and add in the following line under the <p></p> line  <img src="photo1.jpg">  \*replace photo1.jpg with the name of your photo |  |
| Save your updated index.html |  |
| Upload your updated index.html and then reload your website and check that you can now see your photo |  |

# Cleanup

We no longer need the bucket, so to save credit, we will delete it.

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| Return to your S3 bucket list  Select your bucket |  |
| Select “Empty” to get rid of everything in the bucket |  |
| Say “Permanently delete” and click “Empty” |  |
| Select “Exit” |  |
| Select “Delete” to get rid of the bucket itself. |  |
| Enter the name of your bucket, and select “Delete bucket” |  |
| You have now removed all buckets, and your account is no longer being charged |  |

You can now shut down your console.

**End of lab**