Hello, I am Alex, a programmer.

Thank you so much for visiting my tech blog, I am so excited to introduce this blog to you! I developed it with Node.js, and MongoDB, you can find the source code of this blog on my GitHub.

In this little space, I am going to present and share my knowledge, skills, and personal understanding of programming with all of you. Currently, there are several blogs on topics of HTML, CSS/SASS, Javascript, Typescript, Node.js, EJS, React, MongoDB, MS SQL Server, AWS Cloud Service, C#, .Net, HTTP, API, Unity3D, and Data Structure and Algorithms, and I will keep updating new blogs in the coming days. I also look forward to your comments and communication with me. Your support is always what keeps me going. If you have any questions, please do not hesitate to leave comments on the message board of this blog or email me, and I will reply to you as soon as possible. Thank you!

Alex

AWS Multi-factor Authentication(MFA) and Identity Access Management(IAM)

Today I just start my new journey on AWS, and my aim is to get a AWS Architect Associate Certificate and good AWS skills after one months’ learning and practice. Today I have got some introduction knowledge of AWS, and I created multiple AWS accounts with the instruction of Adrian. As the first days lessons are all about AWS account configuration, and security of accounts is really important, the tutor introduce two ways that enhance security of AWS account, which impressed me a lot:

The first thing is Multi-factor Authentication(MFA).

In our daily life, it is very common to use username and password to get authenticated by many authentication systems. However, it is really risky because once someone else gets your username and password, it’s easily to make breach in your account. If more different pieces of evidence could be provided and required to prove identity in the authentication process, it can be more secure. Those evidence is called factors.

Knowledge such as passwords, some specific question and answers, possession such as bank card, MFA device/app, inherent such as fingerprint voice and facial expression and even physical location, and network IP are able to be used as factors. In AWS, we use MFA app to implement the MFA process, it is really convenient to get verified code via mobile apps.

The second thing is Identity and Access Management(IAM).

We know that AWS root account has the highest level of controlling of AWS account, there is no restriction on the root account. As a result, it is very dangerous to make manipulation with the root account and the IAM comes.

IAM has full trust from the AWS Account, and it can create three different type identities, IAM user, IAM group, IAM Role, and I will talk those three identities in the coming blogs.