**AWS Real Life Project:**

Insight Tech had a client that was running a school site for their students. This client needed to run the application on AWS.

I was part of the team that implemented the whole infrastructure for this app and many other applications as well.

**Basically, we needed:**

* a **VPC**
* couple **Subnets**
* an **ELB** (elastic load balancer) to stay in front of the webserver instances.
* an **Autoscaling** group to scale up and scale down our instances accordingly. (CPU over usage, instance terminate)
* couple databases (**RDS** with **MySQL**)
* this app needs to be monitored so therefore we need a monitoring service like **CloudWatch**.
* we need a type of notification when our system is running (new instance getting created, instance getting terminated) and for that we will need a notification system like **SNS** (simple notification service)
* the school domain will be *www.theItschool.com* and to get or purchase this domain, we will need the **Rout53** service. we can also create a **DNS** record with this service.
* our instances will generate log messages that will need storage and for storage we can use the **EBS**, and **S3** bucket
* also, our instances will be serving the same content so we need a share filesystem between those instances and for that we will use **EFS** service.
* we need to manage who can access these infrastructures through the console and to do that we need to configure access using **IAM** service.
* our instance will need access to **S3** bucket for backup and logs and to do that, we need to create **IAM** roles.
* To make sure we can recreate all these without manual effort, we will use the **CloudFormation** service.

**Recap of all AWS services used:**

* IAM user
* IAM roles
* Security groups
* VPC
* Subnets
* EC2
* EBS
* EFS
* ELB
* S3
* RDS
* SNS
* Route53
* Autoscaling group
* CloudWatch
* CloudFormation