*AWS*

**AWS Certified Solutions Architect Associate**

(Tutorial – Channel Name: Udemy)

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**AWS**

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| **Basic Concepts** |

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| **YouTube (**[**https://www.youtube.com/watch?v=Ia-UEYYR44s**](https://www.youtube.com/watch?v=Ia-UEYYR44s)**)** |  |

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| **IAM**  **Creating Access Keys (Udemy Video #21)**      Output    **Using CloudShell (Udemy Video #22)**        **Creating a Role (Udemy Video #25)**          Youtube (<https://www.youtube.com/watch?v=Ia-UEYYR44s>)                                        **Udemy Video #31**        **Create EC2 Instance (Udemy Video #32)**    Step 1    Step 2    Step 3      OR  Step 4    Step 5    Step 6    Step 7      -----------------------------------------------------------------------------------    -----------------------------------------------------------------------------------              **Security Groups**            **Connect to EC2 Linux Instance from Windows (Windows 10) – (Udemy Video #40)**        **Connect to EC2 using Instance Connect (works only for Amazon AMI) – (Udemy Video #42)**    **Add Role to EC2 instance - (Udemy Video #43)**          **EC2 Instance launch Type - (Udemy Video #43)** | **Creating Access Keys (Udemy Video #21)**   * Make sure you have downloaded and installed AWS CLI v2+ * It’s easy msi package available on google * After installation check it using aws --version * Access keys are secret keys used for development using SDKs in any programming language or for accessing AWS Management Console using CLI * Don’t use your root account to create Security Credentials * **Copy and store the credentials as the Secret access key will only be available once** * Access cmd prompt and type in shown command (*aws configure*) * Enter your credentials from above point * Once done, type aws iam list-users * Alternatively, you can also use CloudShell for managing the AWS * No need to add credentials in CLI for accessing the AWS through terminal * You can create resources (files/folders) from the command line * IAM Roles * Required by the services for performing some tasks/actions automatically on your behalf * Not much important for exam * On Demand Instances are Mostly used when there is short-term use * Or for some experiment purpose * If you want to copy AMI from one region to another, you can choose Copy AMI option   **Create EC2 Instance (Udemy Video #32)**   * Select AMI – Amazon Machine Image * Scroll down to bottom * Here in User data, we will add some code   *yum update -y*  *yum install -y httpd*  *systemctl start httpd.service*  *systemctl enable httpd.service*  *echo "<h1> Hello world from $(hostname -f)</h1>" > /var/www/html/index.html*   * This code will be executed at only first time launch * This script will create a webserver on the instance and write a file in it * Create as much as tags you want * This step is to define port so that the other applications outside can access using these ports * Key Value Pair is a pair of Public and Secret Key * Its downloaded as pem file * Create as much as tags you want * As we have created tag, as Name, same has been assigned to the machine. * Copy and paste the IP in the browser and observe * You can also login through the sessions manager provided by amazon * This will open a ssh terminal where you can do your activities * Later, If you want to know what was the User Data been executed, type in this command   **Connect to EC2 Linux Instance from Windows (Windows 10)**   * For Windows < 10, use Putty   + Convert pem file to ppk file using puttygen   + Upload this converted to putty in SSH->Auth   + Connect the instance * For Windows > 10, use Powershell or cmd * Use the path to pem file * Instance address always starts with **ec2-user@** * But in this case, the connection was not established * For successful connection, need to make some configurations * Go to your pem file and click Properties ->Security->Advanced * Owner should be you only * Disable inheritance and Remove other Users * Success   **Add Role to EC2 instance**   * Why is this required? * For eg. if you type following command – aws iam list-users, we get error and asked for “aws configure” * However, it’s a bad idea to run aws configure here. Because, anyone having access to this instance can retrieve the Key and Secret * So, to properly do so, we give role to Instance from IAM * Go to your role and see the policy attached (this was done already, if not, you can add first) * Go back to your EC2 instance, and under Security, observe that there are no Roles attached * To add one, go to Modify IAM role * Add your role, and click Save * Success * Exam Perspective |