# **Description**

Creation of AWS key pair and free tier EC2 instance

# **Acceptance criteria**

1. Create a key pair
2. Define an EC2 instance, placing it within a default VPC using the Security Group

# **Instructions**

**Step 01 – Key Pair preparation**

1. using the AWS Console  
   <https://console.aws.amazon.com/ec2/>  
   (tip: handy do this within Linux on a browser, for example a VM on your local workstation)
2. from navigation bar, select a Region for the key pair (note that a key-pair is bound to a region unless imported to another one explicitly)
3. from the navigation pane (to the side), under NETWORK & SECURITY select Key Pairs  
   > Create Key Pair     
   > enter a Key pair name
4. .pem file (contains private key) is downloaded
5. \*\*\* JUST THIS ONCE\*\*\* via your browser (so save it!!!)

**Step 02 – EC2 preparation**

1. Go to AWS Console home (cube icon in top left hand corner)
2. Search for EC2
3. In the navigation pane select Instance
4. Launch Instance
5. In the Quick Start tab select the Free Tier eligible Ubuntu Server
6. select the Free Tier eligible General Purpose t1.micro instance
7. Next: Configure Instance Details  
   Number of Instances : 1
8. Do not select "Launch into Auto scaling group", or "Request Spot Instances" for this exercise as they are not Free Tier eligible
9. select your VPC (should populate its associated subnet but check)
10. select "Auto-Assign a Public IP" to Enable
11. leave all other fields as they are to avoid charges
12. select Next: Add Storage and observe what resources have been allocated by default for this free tier micro instance and the console settings (like Delete on Termination! ...useful to note that Stopping a server is not the same as terminating it)
13. select Next: Tag instance
14. provide a key like "dev" and value "test-<region>-<az>..."    # the key will provide a useful way to identify a host in an instance listing where there are many instances
15. sselect Next: Configure Security Group
16. choose the radio item: Select an existing security group
17. Select the Security Group you created earlier
18. Review and Launch
19. from the Select an existing key pair or create a new key pair screen select "Choose an existing key pair"
20. Select the key pair created earlier for the admin privileged IAM User
21. Launch Instances
22. select "View instances" to monitor instances running state (once they are in a running state they can be connected to)  
    (this can be revisited using EC2 dashboard (Console home > EC2) > Instances)