IT 3850 Computer System Administration  
Spring 2022

**Laboratory # 8 - AWS**

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1. **Objectives**
2. Explain the SSH tool components
3. Set up AWS Educate Account
4. Deploy EC2 instances
5. SSH to the instance using different Operating Systems.
6. **Material Required**
7. A system with a hosted hypervisor installed (i.e. VMWare Workstation/Fusion) and Red Hat installed and running.
8. An account with AWS. You should have received an invitation from AWS Educate to your email.
9. **Activity**
10. Go through the content of Module 9 posted on Canvas.
11. Deploy an AWS instance using the ‘Red Hat Enterprise Linux 8 (HVM), SSD Volume Type - ami-098f16afa9edf40be’, or similar.
12. **Review Questions**

**\*Important\*. For each question where you are required for a screenshot, include the screenshot that clearly demonstrates you completed that step successfully.** Include any commands you executed for each step as well, if applicable**. All the screenshots for this lab and future labs must include your pawprint in the command prompt or have other information visible that identifies you (i.e. type/draw your pawprint).** This is to ensure that you are submitting your own work.

1. Create a RedHat AWS EC2 instance using your AWS Educate account and start this instance. Show the instance is running in your AWS Console.

Graphical user interface, application, Word

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1. SSH to your AWS instance and create a folder in the home (~) directory using your pawprint as the directory name.

Text

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Used sudo -I to become root Used MKDIR command to create folder in my pawprint

1. Install a web server and start the corresponding service in the AWS instance. i.e.
   1. # dnf install httpd
   2. # systemctl enable httpd
   3. # systemctl start httpd

Text

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1. Create the ***ec2-<pawprint>***user account in your AWS instance and assign a password to it. Replace <pawprint> with your own pawprint. **In addition, add this user to the `wheel` group to enable sudo permissions\*\*.**

**-**Text

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1. Configure the ssh service to allow users to ssh to the AWS instance using password authentication instead of key authentication.
2. **A screenshot of a computer

   Description automatically generated**From your Red Hat virtual machine, ssh to the AWS instance by using the ***ec2-<pawprint>*** user account. You should not be required to use a key - **show that ssh is prompting you for a password.**
3. Download the index file from the course repository and copy it to the instance. Edit the index file and add your pawprint. Lastly, add the .html extension to the file.

A picture containing graphical user interface

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Description automatically generated[https://sites.google.com/umsystem.edu/bazanantequerar/index/it3850-computer-system-administration](https://sites.google.com/umsystem.edu/bazanantequerar/index/it3850-computer-system-administration?authuser=0)

1. Using scp or MobaXterm, copy the index.html file from your local system (Red Hat VM) to your AWS instance (***ec2-<pawprint>*** home directory). Once the file is located in your home directory in AWS, move it to the /var/www/html directory.

1. In your local system, open a web browser and use the EC2 instance’s public IP address to display your index.html file. You will need to enable port 80/tcp (HTTP) in your AWS security group in order to access the web server.
2. After completing the lab, be sure to **STOP** your instance on AWS. This will preserve your system files and configuration, but it will not be running. This will prevent unnecessary usage of your AWS credits for the remaining labs. Show the instance is stopped in your AWS console.

A screenshot of a computer

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**Do not TERMINATE your instance.** Terminating your instance will wipe all instance data, meaning you will lose all of your work.

\*\*If you both a) disable key authentication and b) did not add sudo privileges to your other account, you are effectively locked out of your instance in terms of running sudo commands, so you would need to start over.