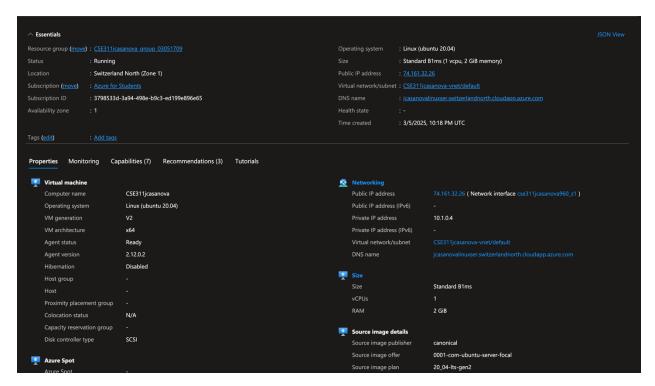Jeffrie Casanova

SBU ID: 114958701

CSE/ISE 311 Homework 5

VM info: Using the Azure VM

IP: 74.161.32.26

Main account:

Jcasanova

Jcasanova@114958701

TA account

Password will be Ta@cse311

Windows VM

- IP Address/Host: 130.245.16.127

- Username: classadmin

- Password: jc114958701

Exercise 1: Will be another File (Exercise 1.pdf)

Exercise 2:

Automake is a tool used in the process of building software from source code. It automatically generates Makefile.in files, which are later turned into Makefiles by the configure script. These Makefiles define how a program is compiled and installed.

Exercise 3:

A vanilla build refers to compiling and installing software from the original, unmodified source code provided by developers. It's called "vanilla" because it represents the standard, default version—free from custom patches or configurations.

Exercise 4:

The GNU General Public License (GPL) is a widely used free software license that guarantees end users the freedom to run, study, share, and modify software.

Exercise 5:

```
jcasanova@CSE311jcasanova:~/ffmpeg_sources/ffmpeg$ ffmpeg —buildconf
ffmpeg version N-119425-g7faa560f1a Copyright (c) 2000-2025 the FFmpeg developers
  built with gcc 9 (Ubuntu 9.4.0-1ubuntu1~20.04.2)
  configuration: --prefix=/home/jcasanova/ffmpeg_build --pkg-config-flags=--static --extra-cflags=-I/home/jcasanova/ffmpeg_build/include --extra-ldflags='-L/
home/jcasanova/ffmpeg_build/lib -L/home/jcasanova/ffmpeg_build/lib/x86_64-linux-gnu' --extra-libs='-lpthread -lm' --ld=g++ --bindir=/home/jcasanova/bin --ena
ble-gpl --enable-libaom --enable-libass --enable-libfdk-aac --enable-libfreetype --enable-libmp3lame --enable-libopus --enable-libsvtav1 --enable-libdav1d --
enable-libvorbis --enable-libvpx --enable-libx264 --enable-libx265 --enable-nonfree
  libavutil      60.  2.100 / 60.  2.100
  libavcodec     62.  2.100 / 62.  2.100
  libavformat    62.  0.102 / 62.  0.102
  libavdevice    62.  0.100 / 62.  0.100
  libavfilter    11.  0.100 / 11.  0.100
  libswscale      9.  0.100 /  9.  0.100
  libswresample   6.  0.100 /  6.  0.100
  libpostproc    59.  1.100 / 59.  1.100
[AVFormatContext @ 0x564c468bccc0] Unable to choose an output format for '-buildconf'; use a standard extension for the filename or specify the format manual
ly
[out#0 @ 0x564c468bcb40] Error initializing the muxer for —buildconf: Invalid argument
Error opening output file —buildconf.
Error opening output files: Invalid argument
jcasanova@CSE311jcasanova:~/ffmpeg_sources/ffmpeg$
```

In text form:

jcasanova@CSE311jcasanova:~/ffmpeg_sources/ffmpeg$ ffmpeg –buildconf

ffmpeg version N-119425-g7faa560f1a Copyright (c) 2000-2025 the FFmpeg developers

 built with gcc 9 (Ubuntu 9.4.0-1ubuntu1~20.04.2)

 configuration: --prefix=/home/jcasanova/ffmpeg_build --pkg-config-flags=--static --extra-cflags=-I/home/jcasanova/ffmpeg_build/include --extra-ldflags='-L/home/jcasanova/ffmpeg_build/lib -L/home/jcasanova/ffmpeg_build/lib/x86_64-linux-gnu' --extra-libs='-lpthread -lm' --ld=g++ --bindir=/home/jcasanova/bin --enable-gpl --enable-libaom --enable-libass --enable-libfdk-aac --enable-libfreetype --enable-libmp3lame --enable-libopus --enable-libsvtav1 --enable-libdav1d --enable-libvorbis --enable-libvpx --enable-libx264 --enable-libx265 --enable-nonfree

 libavutil   60. 2.100 / 60. 2.100

 libavcodec   62. 2.100 / 62. 2.100

 libavformat   62. 0.102 / 62. 0.102

 libavdevice   62. 0.100 / 62. 0.100

 libavfilter   11. 0.100 / 11. 0.100

 libswscale   9. 0.100 / 9. 0.100

 libswresample 6. 0.100 / 6. 0.100

 libpostproc   59. 1.100 / 59. 1.100

[AVFormatContext @ 0x564c468bccc0] Unable to choose an output format for '–buildconf'; use a standard extension for the filename or specify the format manually.

[out#0 @ 0x564c468bcb40] Error initializing the muxer for –buildconf: Invalid argument

Error opening output file –buildconf.

Error opening output files: Invalid argument

Exercise 6:

```
jcasanova@CSE311jcasanova:~/ffmpeg_sources$ ~/bin/ffmpeg -i HW5_ALARM_CL.wav -c:a libfdk_aac alarm_output.aac
ffmpeg version N-119425-g7faa560f1a Copyright (c) 2000-2025 the FFmpeg developers
  built with gcc 9 (Ubuntu 9.4.0-1ubuntu1~20.04.2)
  configuration: --prefix=/home/jcasanova/ffmpeg_build --pkg-config-flags=--static --extra-cflags=-I/home/jcasanova/ffmpeg_build/include --extra-ldflags='-L/
home/jcasanova/ffmpeg_build/lib -L/home/jcasanova/ffmpeg_build/lib/x86_64-linux-gnu' --extra-libs='-lpthread -lm' --ld=g++ --bindir=/home/jcasanova/bin --ena
ble-gpl --enable-libaom --enable-libass --enable-libfdk-aac --enable-libfreetype --enable-libmp3lame --enable-libopus --enable-libsvtav1 --enable-libdav1d --
enable-libvorbis --enable-libvpx --enable-libx264 --enable-libx265 --enable-nonfree
  libavutil     60.  2.100 / 60.  2.100
  libavcodec    62.  2.100 / 62.  2.100
  libavformat   62.  0.102 / 62.  0.102
  libavdevice   62.  0.100 / 62.  0.100
  libavfilter   11.  0.100 / 11.  0.100
  libswscale     9.  0.100 /  9.  0.100
  libswresample  6.  0.100 /  6.  0.100
  libpostproc   59.  1.100 / 59.  1.100
[aist#0:0/pcm_u8 @ 0x559a84745d80] Guessed Channel Layout: mono
Input #0, wav, from 'HW5_ALARM_CL.wav':
  Duration: 00:00:05.41, bitrate: 176 kb/s
  Stream #0:0: Audio: pcm_u8 ([1][0][0][0] / 0x0001), 22000 Hz, mono, u8, 176 kb/s
Stream mapping:
  Stream #0:0 -> #0:0 (pcm_u8 (native) -> aac (libfdk_aac))
Press [q] to stop, [?] for help
Output #0, adts, to 'alarm_output.aac':
  Metadata:
    encoder         : Lavf62.0.102
  Stream #0:0: Audio: aac, 22050 Hz, mono, s16, 48 kb/s
    Metadata:
      encoder         : Lavc62.2.100 libfdk_aac
    Side data:
      cpb: bitrate max/min/avg: 48109/48109/48109 buffer size: 0 vbv_delay: N/A
[out#0/adts @ 0x559a84749b00] video:0KiB audio:32KiB subtitle:0KiB other streams:0KiB global headers:0KiB muxing overhead: 0.000000%
elapsed=0:00:00.06 size=      32KiB time=00:00:05.41 bitrate=  49.1kbits/s speed=  86x
jcasanova@CSE311jcasanova:~/ffmpeg_sources$
```

I've already set Remote Desktop before like at the start of the HWs to have a GUI on my mac so I've completed this before. Used this tutorial : https://learn.microsoft.com/en-us/azure/virtual-machines/linux/use-remote-desktop?tabs=azure-cli

Exercise 7:

I've had Remote Desktop on Ubuntu setup since the beginning of the HWs I used the Microsoft page on how to install it and configure it on my computer. After that on my Remote Desktop app, I put the information about my VM. Added my information for the login and then it would connect me and load up a GUI. Used this tutorial to guide me on the set up process: https://learn.microsoft.com/en-us/azure/virtual-machines/linux/use-remote-desktop?tabs=azure-cli. I installed the XFCE desktop environment and xRDP on my Ubuntu VM using apt. I configured the .xsession file to use XFCE and restarted the xRDP service. Then I allowed port 3389 on the firewall on the azure page and connected using Microsoft Remote Desktop from my host machine.

System Properties — Remote tab

Remote Assistance
☐ Allow Remote Assistance connections to this computer

Remote Desktop
Choose an option, and then specify who can connect.
○ Don't allow remote connections to this computer
● Allow remote connections to this computer
☑ Allow connections only from computers running Remote Desktop with Network Level Authentication (recommended)

Help me choose   Select Users...

OK   Cancel   Apply

Command Prompt

```
Microsoft Windows [Version 10.0.17763.107]
(c) 2018 Microsoft Corporation. All rights reserved.

C:\Users\classadmin>Enable-NetFirewallRule -DisplayGroup "Remote Desktop"
'Enable-NetFirewallRule' is not recognized as an internal or external command,
operable program or batch file.

C:\Users\classadmin>ipconfig

Windows IP Configuration


Ethernet adapter Ethernet 2:

   Connection-specific DNS Suffix  . :
   Link-local IPv6 Address . . . . . : fe80::ed2e:3ee1:b709:5903%4
   IPv4 Address. . . . . . . . . . . : 130.245.16.127
   Subnet Mask . . . . . . . . . . . : 255.255.255.0
   Default Gateway . . . . . . . . . : 130.245.16.1

C:\Users\classadmin>
```

Server Manager • Dashboard

Dashboard
Local Server
All Servers
File and Storage Services
IIS

Add Roles and Features Wizard

Installation progress

DESTINATION SERVER
WINSERV27

View installation progress

ⓘ Feature installation

Installation succeeded on WINSERV27.

.NET Framework 4.7 Features
    ASP.NET 4.7
Web Server (IIS)
    Management Tools
        IIS Management Console
    Web Server
        Application Development
            ASP.NET 4.7
            ISAPI Extensions
            ISAPI Filters
            .NET Extensibility 4.7
        Common HTTP Features
            Default Document
            Directory Browsing
            HTTP Errors
            Static Content
        Health and Diagnostics
            HTTP Logging
        Performance
            Static Content Compression
        Security
            Request Filtering

You can close this wizard without interrupting running tasks. View task progress or open this page again by clicking Notifications in the command bar, and then Task Details.

Export configuration settings

< Previous   Next >   Close   Cancel