IAE 101 – Fall 2021
Project 01 – Mozart's Musical Dice Game

Instructions for Installing and Using simpleaudio on Chromebook

Section A is for students who installed Python on their Chromebook using the terminal.

Section B is for students using PythonAnywhere.

Section C is for students using the virtual sinc site.

A. If you installed Python through the terminal:

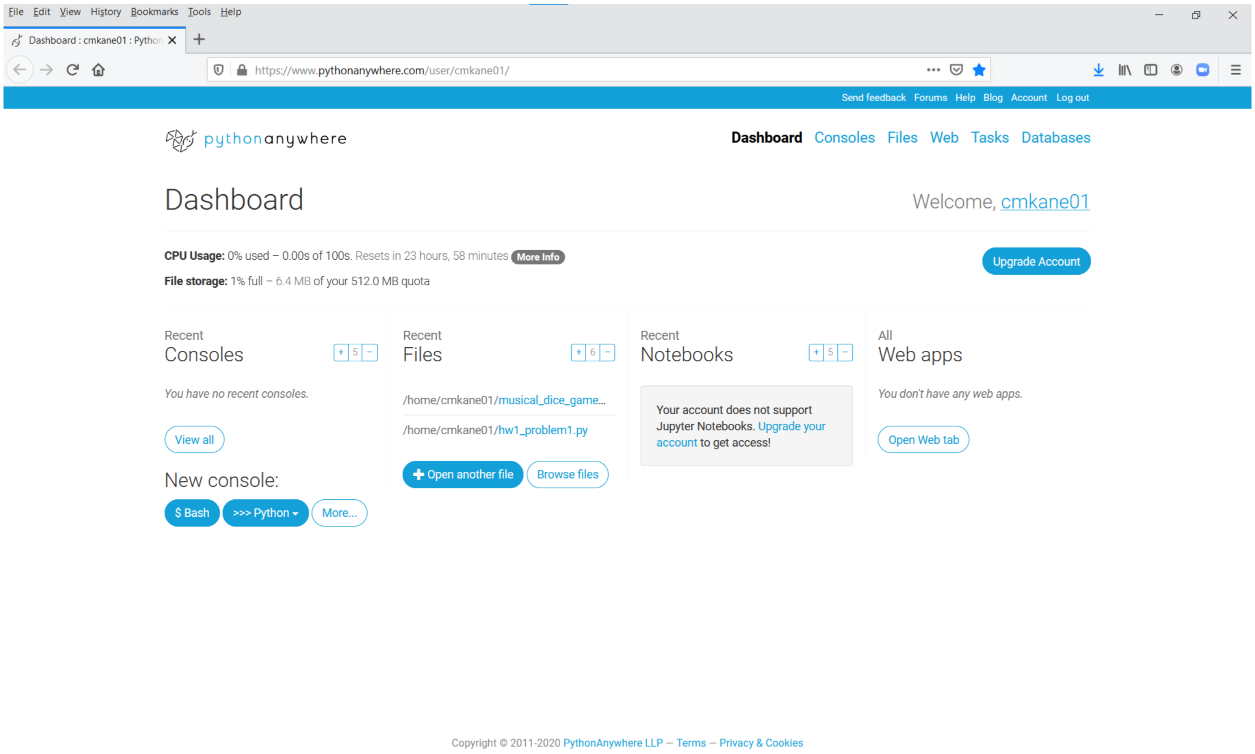
1. Use the command I gave for Macs in the lecture and in the assignment to install simpleaudio.

2. If it doesn't work, email me.

B. If you are using PythonAnywhere:

1. From the Files page upload the following:
   -musical_dice_game.py
   -mozart.zip

2. Go to the PythonAnywhere Dashboard.


File Edit View History Bookmarks Tools Help
Dashboard : cmkane01 : Python
https://www.pythonanywhere.com/user/cmkane01/
Send feedback Forums Help Blog Account Log out
pythonanywhere
Dashboard Consoles Files Web Tasks Databases
Dashboard
Welcome, cmkane01
More Info
Upgrade Account
Recent
Consoles
Recent
Files
Recent
Notebooks
All
Web apps
View all
Open another file
Browse files
Open Web tab
New console:
$ Bash
>>> Python
More...

CPU Usage: 0% used – 0.00s of 100s. Resets in 23 hours, 58 minutes

File storage: 1% full – 6.4 MB of your 512.0 MB quota

You have no recent consoles.

/home/cmkane01/musical_dice_game...

/home/cmkane01/hw1_problem1.py

Your account does not support Jupyter Notebooks. Upgrade your account to get access!

You don't have any web apps.

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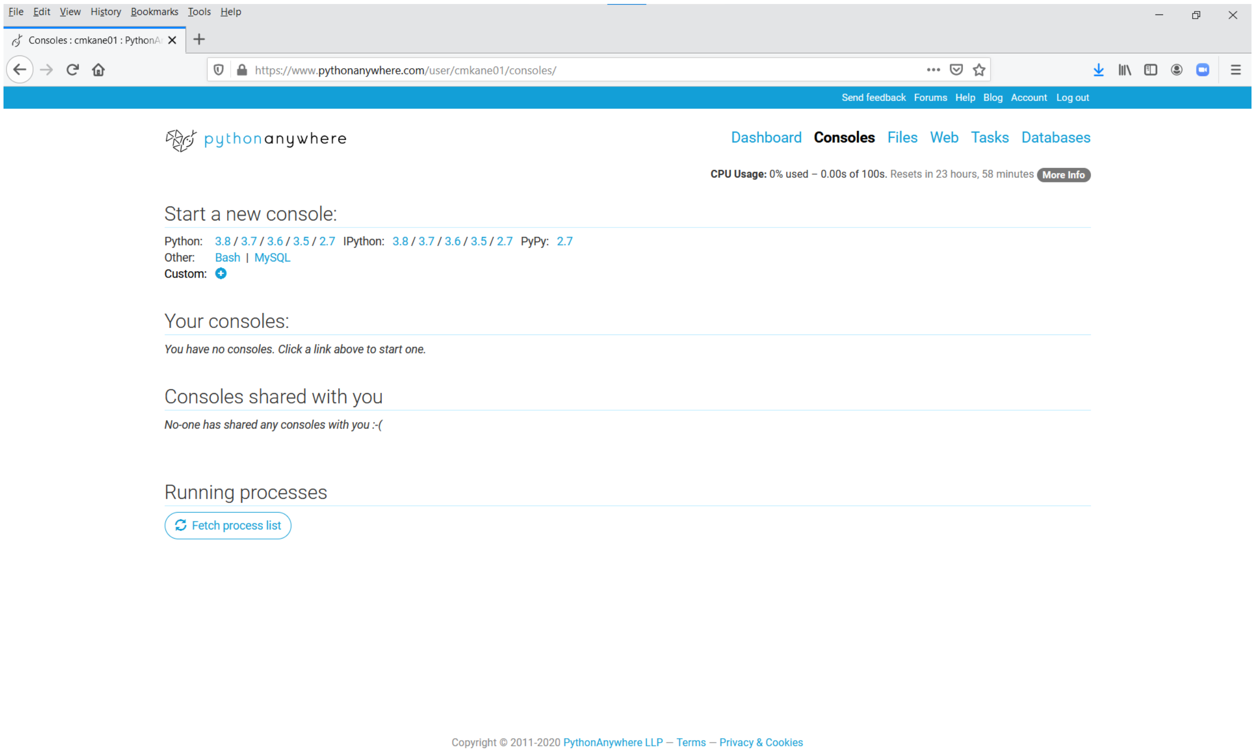
3. Now, go to the Consoles page:


File Edit View History Bookmarks Tools Help
Consoles : cmkane01 : PythonA
https://www.pythonanywhere.com/user/cmkane01/consoles/
Send feedback Forums Help Blog Account Log out
pythonanywhere
Dashboard Consoles Files Web Tasks Databases

CPU Usage: 0% used – 0.00s of 100s. Resets in 23 hours, 58 minutes More Info

Start a new console:

Python: 3.8 / 3.7 / 3.6 / 3.5 / 2.7 IPython: 3.8 / 3.7 / 3.6 / 3.5 / 2.7 PyPy: 2.7
Other: Bash | MySQL
Custom: ⊕

Your consoles:

You have no consoles. Click a link above to start one.

Consoles shared with you

No-one has shared any consoles with you :-(

Running processes

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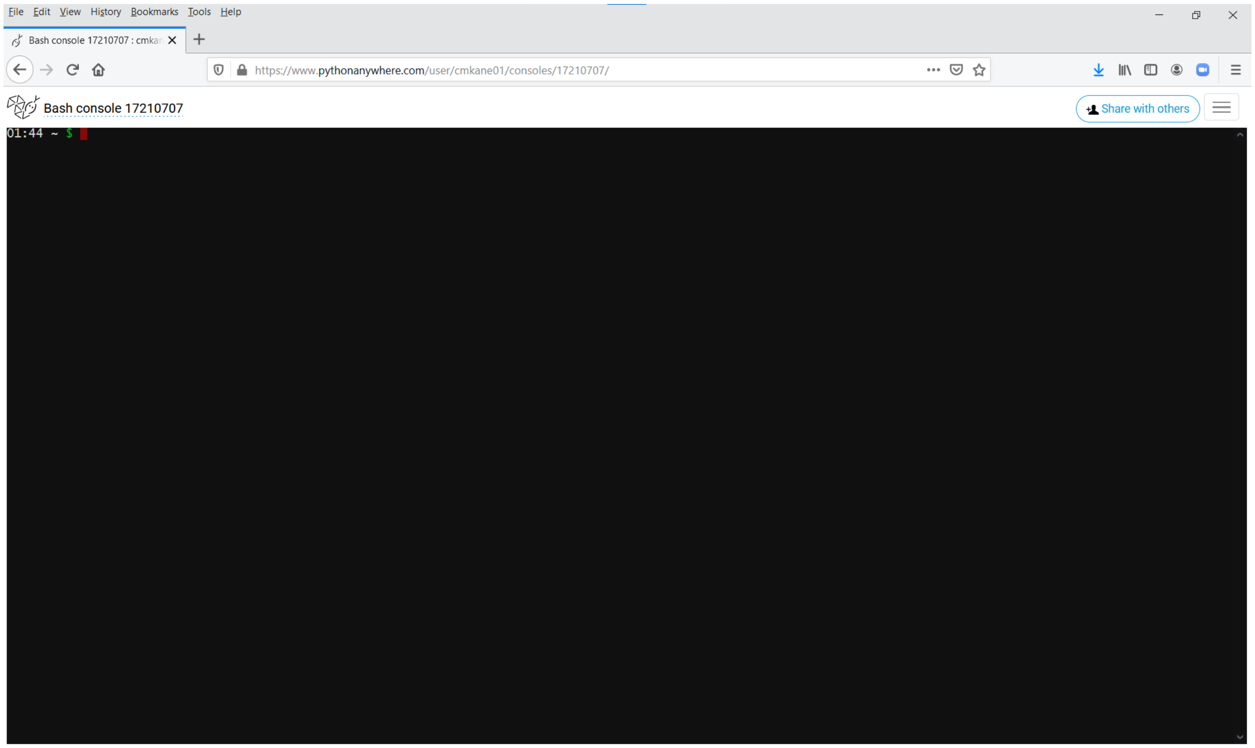
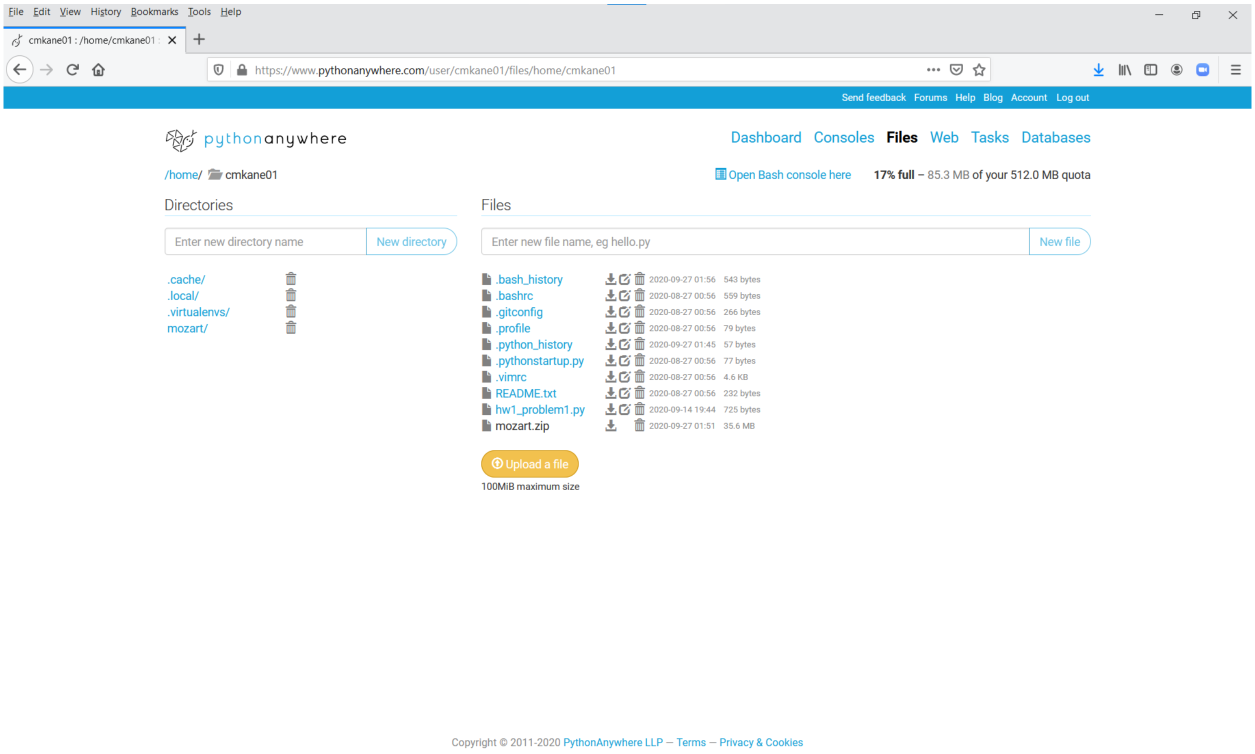
4. Start a **Bash** console:


File Edit View History Bookmarks Tools Help
Bash console 17210707 : cmkar
https://www.pythonanywhere.com/user/cmkane01/consoles/17210707/
Bash console 17210707
Share with others

```
01:44 ~ $
```

5. Enter the following commands in this order:
    1. python3 -m pip install simpleaudio –user
    2. unzip mozart.zip
    3. mv musical_dice_game.py

6. Now go back to the Files page. It should look like this:


File Edit View History Bookmarks Tools Help
cmkane01 : /home/cmkane01
https://www.pythonanywhere.com/user/cmkane01/files/home/cmkane01
Send feedback Forums Help Blog Account Log out
pythonanywhere
Dashboard Consoles Files Web Tasks Databases
Open Bash console here
New directory
New file
Upload a file

/home/ cmkane01

17% full – 85.3 MB of your 512.0 MB quota

Directories

Enter new directory name

.cache/
.local/
.virtualenvs/
mozart/

Files

Enter new file name, eg hello.py

.bash_history	2020-09-27 01:56	543 bytes
.bashrc	2020-08-27 00:56	559 bytes
.gitconfig	2020-08-27 00:56	266 bytes
.profile	2020-08-27 00:56	79 bytes
.python_history	2020-09-27 01:45	57 bytes
.pythonstartup.py	2020-08-27 00:56	77 bytes
.vimrc	2020-08-27 00:56	4.6 KB
README.txt	2020-08-27 00:56	232 bytes
hw1_problem1.py	2020-09-14 19:44	725 bytes
mozart.zip	2020-09-27 01:51	35.6 MB

100MiB maximum size

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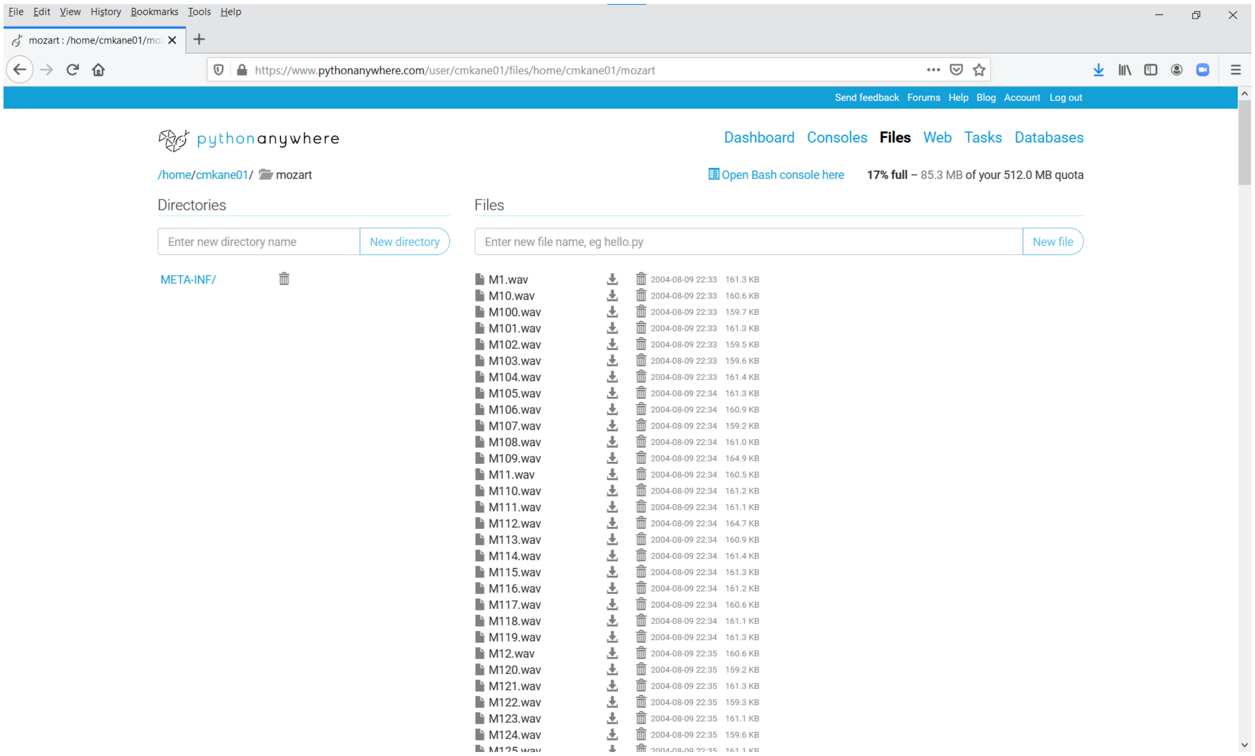
7. Now click the "mozart/" folder under Directories, on the left:


File Edit View History Bookmarks Tools Help
mozart : /home/cmkane01/mo:
https://www.pythonanywhere.com/user/cmkane01/files/home/cmkane01/mozart
Send feedback Forums Help Blog Account Log out
pythonanywhere
Dashboard Consoles Files Web Tasks Databases
Directories
Enter new directory name
New directory
Files
Enter new file name, eg hello.py
New file

/home/cmkane01/ mozart

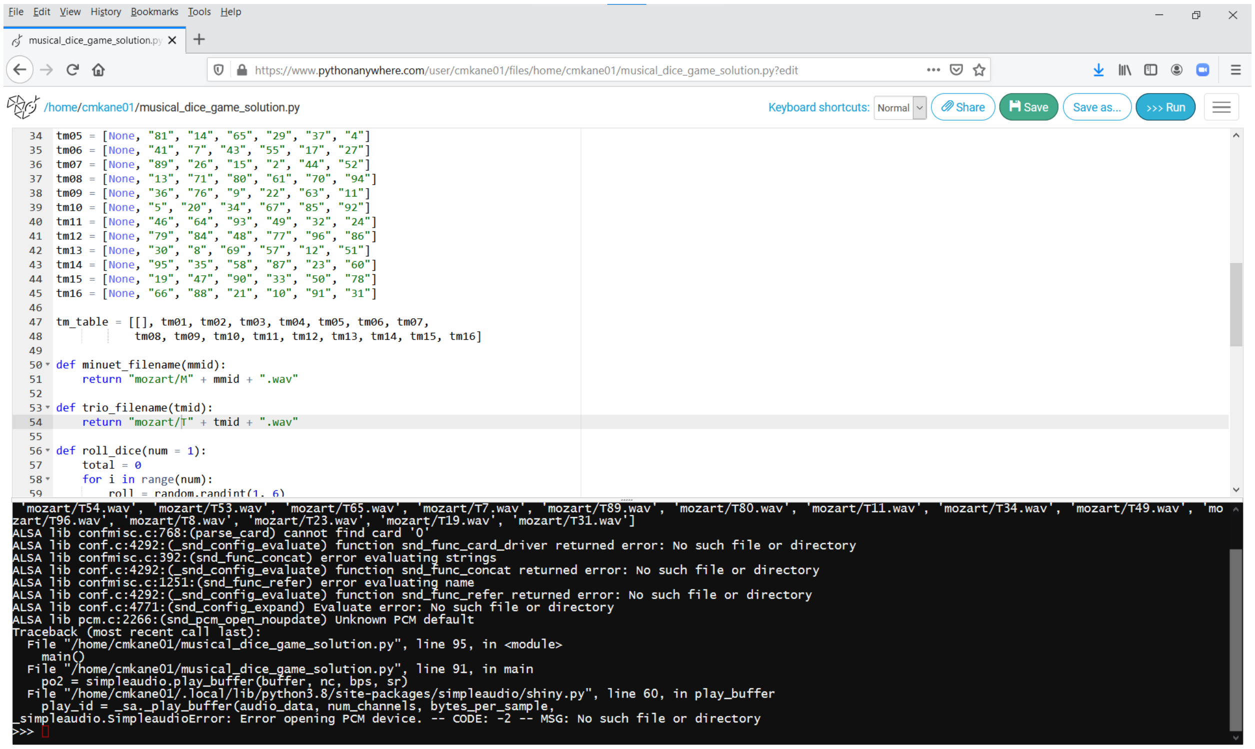
Open Bash console here

17% full – 85.3 MB of your 512.0 MB quota

META-INF/

M1.wav	2004-08-09 22:33	161.3 KB
M10.wav	2004-08-09 22:33	160.6 KB
M100.wav	2004-08-09 22:33	159.7 KB
M101.wav	2004-08-09 22:33	161.3 KB
M102.wav	2004-08-09 22:33	159.5 KB
M103.wav	2004-08-09 22:33	159.6 KB
M104.wav	2004-08-09 22:33	161.4 KB
M105.wav	2004-08-09 22:34	161.3 KB
M106.wav	2004-08-09 22:34	160.9 KB
M107.wav	2004-08-09 22:34	159.2 KB
M108.wav	2004-08-09 22:34	161.0 KB
M109.wav	2004-08-09 22:34	164.9 KB
M11.wav	2004-08-09 22:34	160.5 KB
M110.wav	2004-08-09 22:34	161.2 KB
M111.wav	2004-08-09 22:34	161.1 KB
M112.wav	2004-08-09 22:34	164.7 KB
M113.wav	2004-08-09 22:34	160.9 KB
M114.wav	2004-08-09 22:34	161.4 KB
M115.wav	2004-08-09 22:34	161.3 KB
M116.wav	2004-08-09 22:34	161.2 KB
M117.wav	2004-08-09 22:34	160.6 KB
M118.wav	2004-08-09 22:34	161.1 KB
M119.wav	2004-08-09 22:34	161.3 KB
M12.wav	2004-08-09 22:35	160.6 KB
M120.wav	2004-08-09 22:35	159.2 KB
M121.wav	2004-08-09 22:35	161.3 KB
M122.wav	2004-08-09 22:35	159.3 KB
M123.wav	2004-08-09 22:35	161.1 KB
M124.wav	2004-08-09 22:35	159.6 KB
M125.wav	2004-08-09 22:35	161.1 KB

8. Now, your program is in the same folder as all the music files. You can write your program and try to run it. If you start getting this error:


File Edit View History Bookmarks Tools Help
musical_dice_game_solution.py
https://www.pythonanywhere.com/user/cmkane01/files/home/cmkane01/musical_dice_game_solution.py?edit
/home/cmkane01/musical_dice_game_solution.py
Keyboard shortcuts: Normal
Share
Save
Save as...
>>> Run

```
tm05 = [None, "81", "14", "65", "29", "37", "4"]
tm06 = [None, "41", "7", "43", "55", "17", "27"]
tm07 = [None, "89", "26", "15", "2", "44", "52"]
tm08 = [None, "13", "71", "80", "61", "70", "94"]
tm09 = [None, "36", "76", "9", "22", "63", "11"]
tm10 = [None, "5", "20", "34", "67", "85", "92"]
tm11 = [None, "46", "64", "93", "49", "32", "24"]
tm12 = [None, "79", "84", "48", "77", "96", "86"]
tm13 = [None, "30", "8", "69", "57", "12", "51"]
tm14 = [None, "95", "35", "58", "87", "23", "60"]
tm15 = [None, "19", "47", "90", "33", "50", "78"]
tm16 = [None, "66", "88", "21", "10", "91", "31"]

tm_table = [[], tm01, tm02, tm03, tm04, tm05, tm06, tm07,
            tm08, tm09, tm10, tm11, tm12, tm13, tm14, tm15, tm16]

def minuet_filename(mmid):
    return "mozart/M" + mmid + ".wav"

def trio_filename(tmid):
    return "mozart/T" + tmid + ".wav"

def roll_dice(num = 1):
    total = 0
    for i in range(num):
        roll = random.randint(1, 6)
```

```
 'mozart/T54.wav', 'mozart/T53.wav', 'mozart/T65.wav', 'mozart/T7.wav', 'mozart/T89.wav', 'mozart/T80.wav', 'mozart/T11.wav', 'mozart/T34.wav', 'mozart/T49.wav', 'mo
zart/T96.wav', 'mozart/T8.wav', 'mozart/T23.wav', 'mozart/T19.wav', 'mozart/T31.wav']
ALSA lib confmisc.c:768:(parse_card) cannot find card '0'
ALSA lib conf.c:4292:(_snd_config_evaluate) function snd_func_card_driver returned error: No such file or directory
ALSA lib confmisc.c:392:(snd_func_concat) error evaluating strings
ALSA lib conf.c:4292:(_snd_config_evaluate) function snd_func_concat returned error: No such file or directory
ALSA lib confmisc.c:1251:(snd_func_refer) error evaluating name
ALSA lib conf.c:4292:(_snd_config_evaluate) function snd_func_refer returned error: No such file or directory
ALSA lib conf.c:4771:(snd_config_expand) Evaluate error: No such file or directory
ALSA lib pcm.c:2266:(snd_pcm_open_noupdate) Unknown PCM default
Traceback (most recent call last):
  File "/home/cmkane01/musical_dice_game_solution.py", line 95, in <module>
    main()
  File "/home/cmkane01/musical_dice_game_solution.py", line 91, in main
    po2 = simpleaudio.play_buffer(buffer, nc, bps, sr)
  File "/home/cmkane01/.local/lib/python3.8/site-packages/simpleaudio/shiny.py", line 60, in play_buffer
    play_id = _sa._play_buffer(audio_data, num_channels, bytes_per_sample,
_simpleaudio.SimpleaudioError: Error opening PCM device. -- CODE: -2 -- MSG: No such file or directory
>>> 
```

Then you are on the right track, but if you get any other error, then there is something wrong with your program.

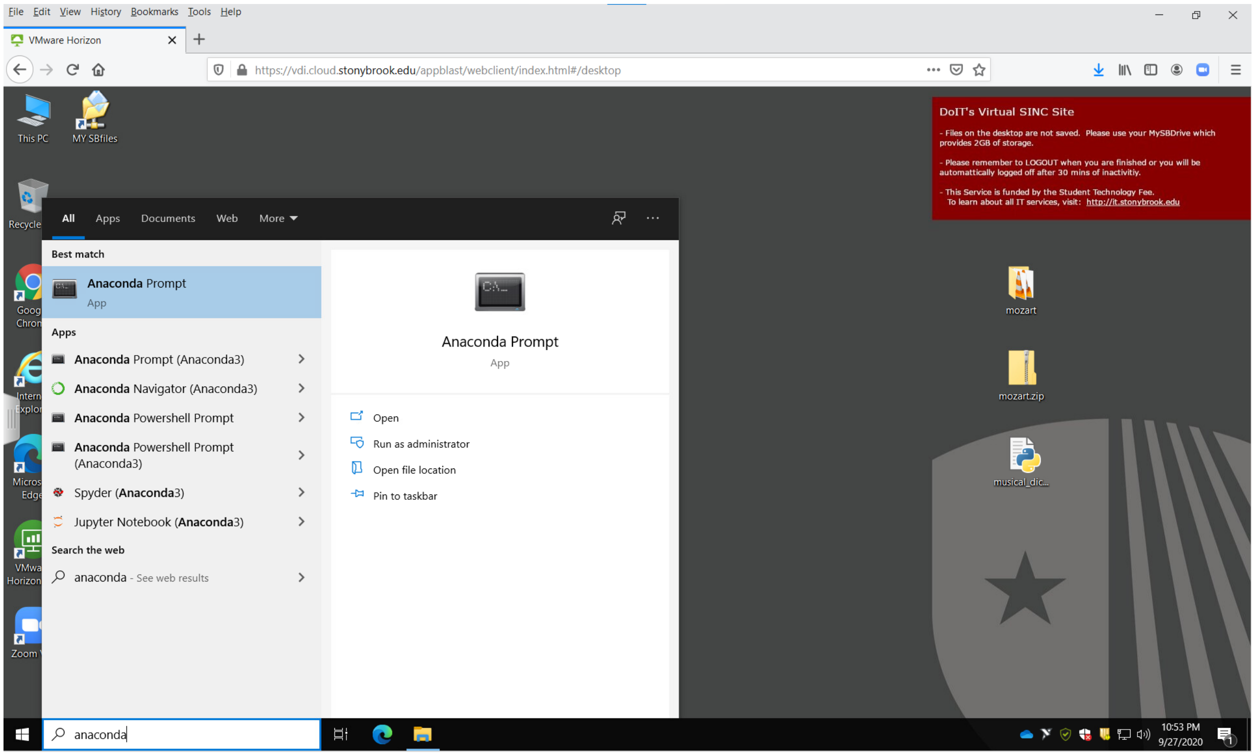
9. Send your program to me or one of the TAs and we will be able to test it.

C. If you are using the Virtual Sinc Site:

Get your musical_dice_game.py and mozart.zip onto the virtual sinc site, probably through mySBfiles. Unzip the archive and place your program inside the mozart folder. When you want to try to run the program you will have to copy it to the desktop. REMEMBER: Files left on the desktop will not be saved by the virtual sinc site.

To install simpleaudio you will have to do the following (unfortunately, we cannot use Idle on the sinc site for this):

1. Type "anaconda" into the searchbox on the toolbar:



DoIT's Virtual SINC Site

- Files on the desktop are not saved. Please use your MySBDrive which provides 2GB of storage.

- Please remember to LOGOUT when you are finished or you will be automattically logged off after 30 mins of inactivitiy.

- This Service is funded by the Student Technology Fee.
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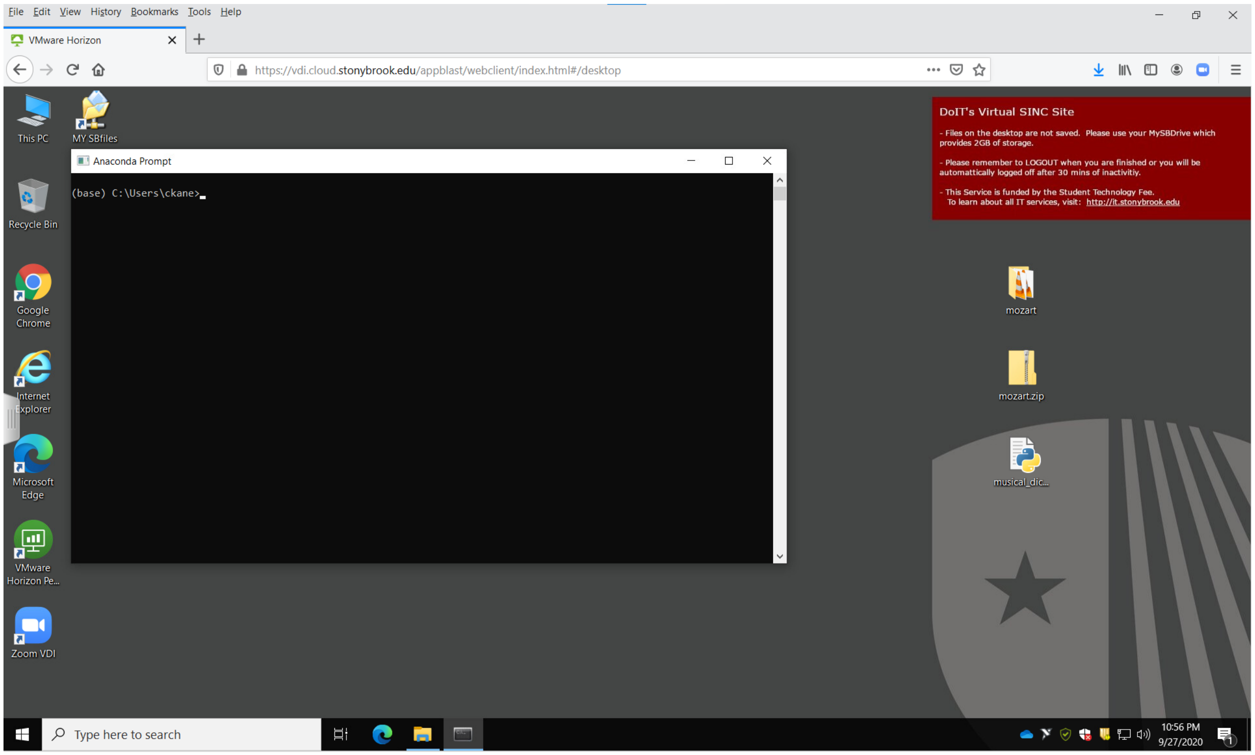
File Edit View History Bookmarks Tools Help
VMware Horizon
https://vdi.cloud.stonybrook.edu/appblast/webclient/index.html#/desktop
This PC
MY SBfiles
Recycle
All
Apps
Documents
Web
More
Best match
Anaconda Prompt
App
Apps
Anaconda Prompt (Anaconda3)
Anaconda Navigator (Anaconda3)
Anaconda Powershell Prompt
Anaconda Powershell Prompt (Anaconda3)
Spyder (Anaconda3)
Jupyter Notebook (Anaconda3)
Search the web
anaconda - See web results
Anaconda Prompt
App
Open
Run as administrator
Open file location
Pin to taskbar
mozart
mozart.zip
musical_dic...
anaconda
10:53 PM
9/27/2020

2. Select Anaconda Prompt:



```
(base) C:\Users\ckane>_
```

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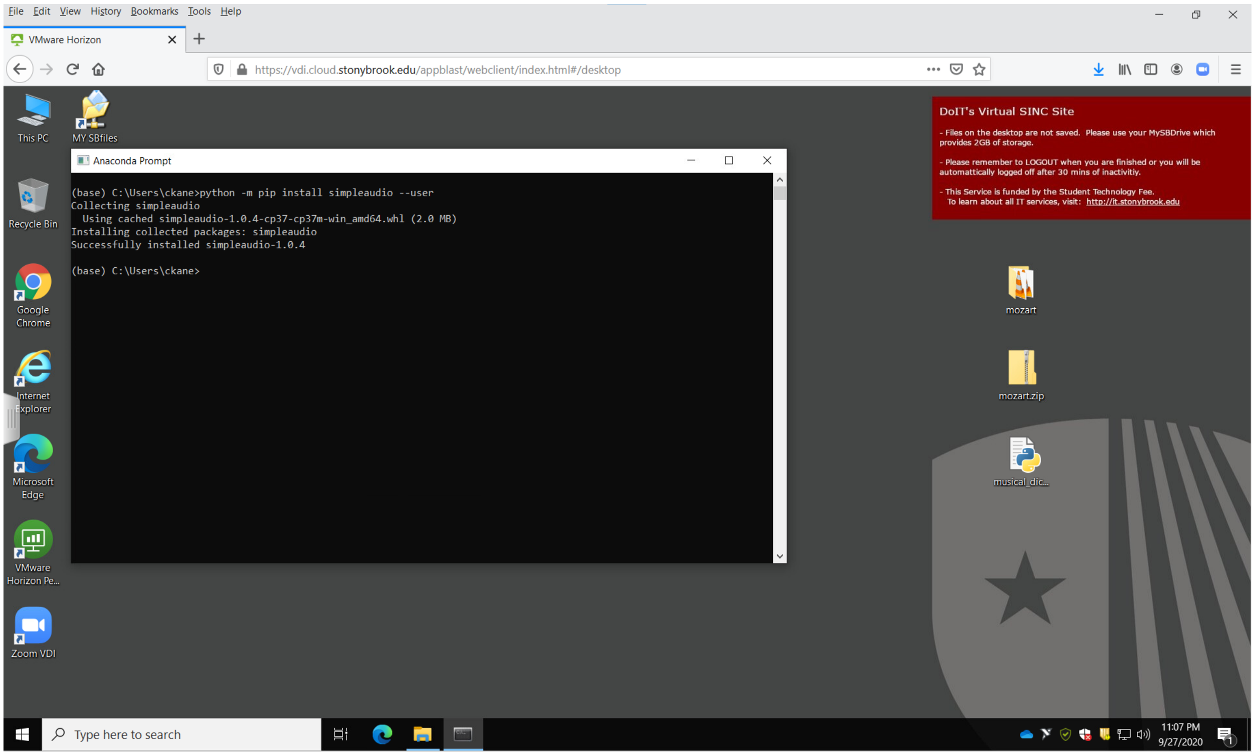
3. Enter the following command: python -m pip install simpleaudio –user



```
(base) C:\Users\ckane>python -m pip install simpleaudio --user
Collecting simpleaudio
  Using cached simpleaudio-1.0.4-cp37-cp37m-win_amd64.whl (2.0 MB)
Installing collected packages: simpleaudio
Successfully installed simpleaudio-1.0.4

(base) C:\Users\ckane>
```

DoIT's Virtual SINC Site

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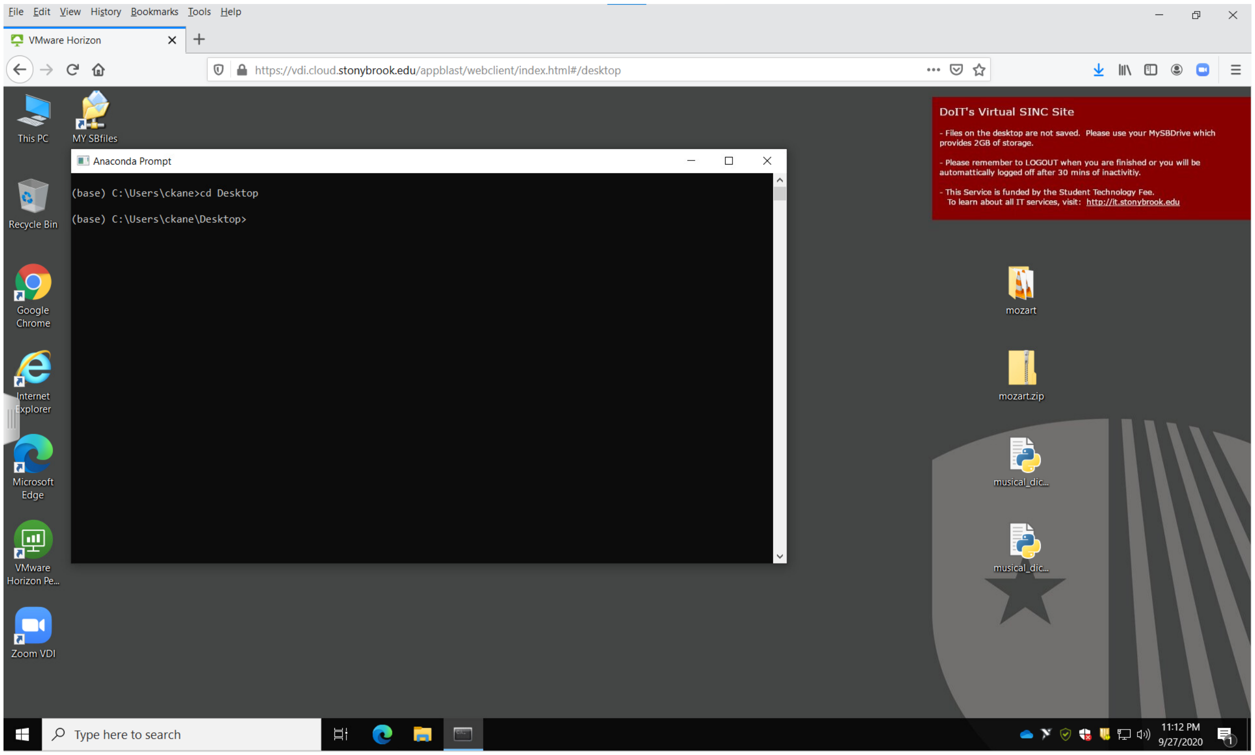
4. Now navigate to the Desktop with the command: cd Desktop



```
(base) C:\Users\ckane>cd Desktop

(base) C:\Users\ckane\Desktop>
```

DoIT's Virtual SINC Site

- Files on the desktop are not saved. Please use your MySBDrive which provides 2GB of storage.

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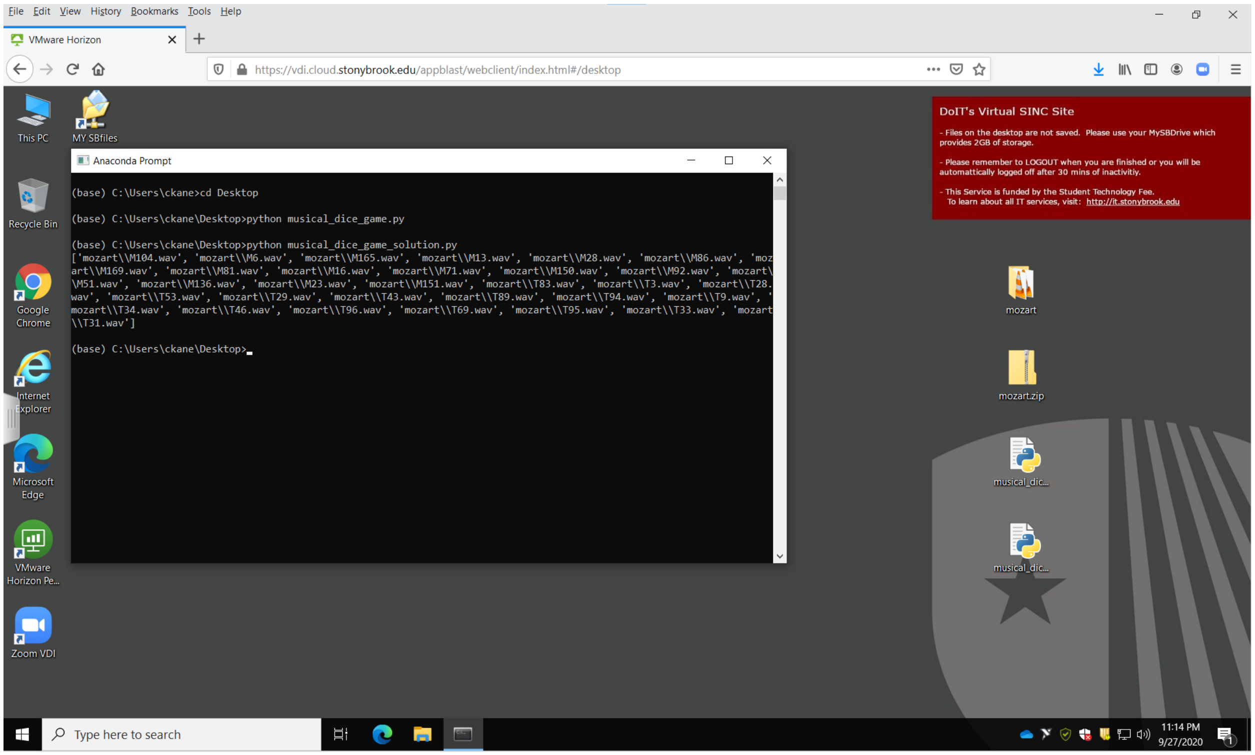
5. Run your program with the command: python musical_dice_game.py



```
(base) C:\Users\ckane>cd Desktop

(base) C:\Users\ckane\Desktop>python musical_dice_game.py

(base) C:\Users\ckane\Desktop>python musical_dice_game_solution.py
['mozart\\M104.wav', 'mozart\\M6.wav', 'mozart\\M165.wav', 'mozart\\M13.wav', 'mozart\\M28.wav', 'mozart\\M86.wav', 'moz
art\\M169.wav', 'mozart\\M81.wav', 'mozart\\M16.wav', 'mozart\\M71.wav', 'mozart\\M150.wav', 'mozart\\M92.wav', 'mozart\
\M51.wav', 'mozart\\M136.wav', 'mozart\\M23.wav', 'mozart\\M151.wav', 'mozart\\T83.wav', 'mozart\\T3.wav', 'mozart\\T28.
wav', 'mozart\\T53.wav', 'mozart\\T29.wav', 'mozart\\T43.wav', 'mozart\\T89.wav', 'mozart\\T94.wav', 'mozart\\T9.wav', '
mozart\\T34.wav', 'mozart\\T46.wav', 'mozart\\T96.wav', 'mozart\\T69.wav', 'mozart\\T95.wav', 'mozart\\T33.wav', 'mozart
\\T31.wav']

(base) C:\Users\ckane\Desktop>_
```

DoIT's Virtual SINC Site

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- Please remember to LOGOUT when you are finished or you will be automattically logged off after 30 mins of inactivitiy.

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