

pack function

Show the use of the unpack function
Show that unpack produces a tuple

About the unpack function

<https://docs.python.org/2/library/struct.html>

<https://docs.python.org/3/library/struct.html>

In python:

```
import struct
```

```
s1 = struct.pack('h', 2)
```

```
s1
```

```
'\x02\x00'
```

```
x = struct.unpack('h', s1)
```

```
x
```

```
(2,)      # THIS IS A TUPLE WITH ONE ELEMENT
```

```
type(x)
```

```
<class 'tuple'>
```

```
s2 = struct.pack('hh', 2, 3)
```

```
s2
```

```
'\x02\x00\x03\x00'
```

```
x = struct.unpack('hh', s2)
```

```
x
```

```
(2, 3)    # THIS IS A TUPLE WITH TWO ELEMENTS
```

```
type(x)
```

```
<class 'tuple'>
```

Play WAV file using PyAudio

In the demo file 'play_wav_mono.py', what if the gain is very high? How does that affect the sound?

Activity for student

There are separate demo files for mono and stereo WAV files. Instead of having separate programs for mono and stereo files, write a single Python program that can handle both. Your program should first determine if the file is mono or stereo by reading the wave file information.