

PROGRAM 6.6

I/P:

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In [13]: #AMIT CHAUHAN
#RA2311004010332 ECE/F

import numpy as np
import sounddevice as sd
frequency=440
fs=44100
seconds=4
t=np.linspace(0,seconds,seconds*fs,False)
note=np.sin(frequency*t*2*np.pi)
audio=note*(2**15-1)/np.max(np.abs(note))
print("the sound wave of frequency 440Hz is generated and heard")
sd.play(audio,fs)
sd.wait()
frequency=500
fs=44100
seconds=1
t=np.linspace(0,seconds,seconds*fs,False)
note=np.sin(frequency*t*2*np.pi)
audio=note*(2**15-1)/np.max(np.abs(note))
audio=audio.astype(np.int16)
sd.play(audio,fs)
print("the sound wave of frequency 500Hz is generated and heard")
```

O/P:

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the sound wave of frequency 440Hz is generated and heard
the sound wave of frequency 500Hz is generated and heard
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