```
Ts = 0:0.0001:3;
f = 440;
x1 = sin(2 * pi * f * Ts);
plot(Ts, x1);
xlim([0 0.01]);
xlabel("Time");

% c = sin(2 * pi * 440 * Ts);
% c_1 = sin(2 * pi * 880 * Ts);
% c_2 = sin(2 * pi * 1760 * Ts);
% sound(c); pause(6); sound(c_1); pause(6); sound(c_2);
clf;
s = sin(2 * pi * 440 * Ts) + sin(2 * pi * 554 * Ts) + sin(2 * pi * 659 * Ts);
plot(Ts, s);
xlim([0 0.01]);
soundsc(s);
```

Published with MATLAB® R2022b

```
t = 0:0.001:3;
ph = 0;
% ph = pi / 4;
% ph = pi / 2;
% ph = 3 * pi/ 4;
% ph = pi;
x2 = cos(2 * pi * 587 * t + ph);
plot(t,x2);
xlim([0 0.1]);
sound(x2);
```

Published with MATLAB® R2022b

```
t = 0:0.0001:3;
% a = 1;
a = 2;
% a = 3;
x3 = exp(-(a ^ 2 + 2) * t) .* cos(2 * pi * 440 * t);
plot(t, x3);
xlim([0 0.1]);
soundsc(x3);
```

Published with MATLAB® R2022b

```
t = 0:0.0001:2;
% x4 = cos(2* pi * 10 * t) .* cos(2 * pi * 1 * t);
x4 = 1/2 * (cos(2 * pi * 20 * t) + cos(2 * pi * 10 * t));
plot(t, x4);
xlim([0 0.1]);
sound(x4);
```

Published with MATLAB® R2022b

```
t = 0:0.0001:1.5;
mu = -1000;
phi = 0;
f0 = 2500;
x5 = cos(2 * pi * mu * t.^2 + 2 * pi * f0 * t + phi);
plot(t, x5);
sound(x5);
```

Published with MATLAB® R2022b

```
notename = ["A", "A#", "B", "C", "C#", "D", "D#", "E", "F", "F#", "G", "G#"];

song = ["E", "D#", "E", "D#", "E", "B", "D", "C", "A"];

for k1 = 1:length(song)
    idx = strcmp(song(k1), notename);
    songidx(k1) = find(idx);
end

dur = 0.38 * 8192;
songnote = [ ];

for k1 = 1:length(songidx)
    songnote = [songnote; [notecreate(songidx(k1), dur) zeros(1, 75)]'];
end

sound(songnote, 8192);
%audiowrite('hasan_utku_uçar_part6.wav', songnote, 8192);

function [note] = notecreate(frq_no, dur)
    note = sin(2 * pi * [1:dur] / 8192 * (440 * 2 .^((frq_no - 1) / 12)));
end
```

Published with MATLAB® R2022b