```matlab
% Parameters
fs = 10000;           % Sampling frequency (Hz)
t = 0:1/fs:1;         % Time vector (1 second duration)
fc = 100;             % Carrier frequency (Hz)
fm = 20;              % Message signal frequency (Hz)
Am = 1;               % Amplitude of message signal
Ac = 2;               % Amplitude of carrier signal
modIndex = 0.5;       % Modulation index (between 0 and 1)

% Message signal (sinusoidal)
message = Am * sin(2 * pi * fm * t);

% Carrier signal
carrier = Ac * cos(2 * pi * fc * t);

% AM signal (modulated)
am_signal = (1 + modIndex * message) .* carrier;

% Plot results
figure;

% Message signal
subplot(3, 1, 1);
plot(t, message);
title('Message Signal');
xlabel('Time (s)');
ylabel('Amplitude');

% Carrier signal
subplot(3, 1, 2);
plot(t, carrier);
title('Carrier Signal');
xlabel('Time (s)');
ylabel('Amplitude');

% Modulated signal
subplot(3, 1, 3);
plot(t, am_signal);
title('AM Signal');
xlabel('Time (s)');
ylabel('Amplitude');

% Optional: Play the modulated signal as audio
% sound(am_signal, fs);
```