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| % NAME-Urvashi Pandey |
|  | % PRN-16070123108 |
|  | %% INTRODUCTION TO SIMULINK( MASS-FORCE SYSTEM) |
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|  |  |
|  | clc; % clears command window |
|  | clear all; % clears the workspace |
|  | close all; % closes all the current windows |
|  | F=8;M=2;K=16;B=4; % F-force,M-mass,B-damping ratio,K=spring constant |
|  | x0=4; % initialize the system with displacement of 4 |
|  | sim('MASS'); % simulates the specified model using existing model configuration parameters |
|  | plot(t,x,'-\*') |
|  | hold on; % add a second plot without deleting the existing line plot |
|  | B=8; |
|  | sim('MASS'); |
|  | plot(t,x,'r') |
|  | B=12; |
|  | sim('MASS'); |
|  | plot(t,x,'--b') % creates 2D plot of displatement versus time |
|  | B=2.5; |
|  | sim('MASS'); |
|  | plot(t,x,'g') |
|  | title('RESPONSE') |
|  | xlabel('Time(sec)'); |
|  | ylabel('DISPLACEMENT(m)') |
|  | legend('B=4','B=8','B=12','B=2.5'); |