Solving System of ODEs

First run this MATLAB function **ODEs_system** or the more general script that lets you solve more than two ODEs of any order which is **ODEs_system2** and both implements the built-in function **ode45** to numerically solve a system of ODEs subject to initial conditions $x0$, $y0$; ant take the value in y_init. Also enter the parameters you want to be in your equations then adjust the time span $tspan$.

Then run the example script **ODEs_system_example** after adjusting the inputs as you want.

Input Arguments in the example script:

- **dxdt**: first ODE .
- **dydt**: second ODE .
- **y0**: initial y.
- **[a…d]** : the parameters.
- **tspan** : time span.

Output Arguments:

- **A plot of the solution.**

The Plot for the System of ODEs Example: