Write a MATLAB/Python code to solve the problem

$$\begin{aligned} \min \ & (x_1 - R)^2 + (x_1 - 2x_2)^2 \\ s.t. \ & x_1^2 - x_2 = 0. \end{aligned}$$

(R is the last two digits of your roll number) using penalty function method. Consider $\mu_0 = 0.1$, $\beta = 10$, and stopping criteria $\mu_k \alpha(x^k) < 10^-5$ or maximum 200 iterations.