$$p_i\left(t+\frac{\epsilon}{2}\right) = p_i(t) - \frac{\epsilon}{2}\frac{\partial U}{\partial q_i}\left(q(t)\right)$$

$$q(t+\epsilon) = q_i(t) + \epsilon\frac{p_i\left(t+\frac{\epsilon}{2}\right)}{m_i}$$

$$p_i(t+\epsilon) = p_i\left(t+\frac{\epsilon}{2}\right) - \frac{\epsilon}{2}\frac{\partial U}{\partial q_i}\left(q(t+\epsilon)\right)$$