$$u(t_i) = g(t_i, u(t_i)) + \int_0^{t_i} \frac{1}{\sqrt{t_i - s}} k_1(t_i, s, u(t_i), u(s)) \mathrm{d}s + \int_0^{t_i} k_2(t_i, s, u(t_i), u(s)) \mathrm{d}s,$$