$$Y_1 = Y_1 + U_0 + U_1 * Time_1$$
$$Y_2 = Y_2 + U_0 + U_1 * Time_2$$
$$Y_3 = Y_3 + U_0 + U_1 * Time_3$$

Description of Variables

1) **Random intercept:** U_0 has a Logistic(0, 1) distribution, which requires a sixth cumulant correction of 1.75
2) **Random slope for time:** U_1 has a t(df = 10) distribution

3) **Correlation** between random effects is 0.4

In this example, the random intercept and time slope have continuous non-mixture distributions for all Y. However, the functions `corrsys` and `corrsys2` permit a combination of none, non-mixture, and mixture distributions across the Y (i.e., if `rand.int = c("non_mix", "mix", "none")` then the random intercept for Y_1 has a non-mixture, and the random intercept for Y_2 has a mixture distribution; there is no random intercept for Y_3). In addition, the distributions themselves can vary across outcomes. This is also true for random effects assigned to independent variables as specified in `rand.var`.