

Comparative Programming Languages 2001

p5q5
p12q6
MR

(a) Simula has classes and single inheritance. Each class may have a thread of control and can behave like a coroutine that can be started and suspended. Syntax is similar to Algol. Good built-in features to assist discrete event simulation.

(b) Possible classes:

door generate random groups of customers
party implement behaviour of a group
queue of groups waiting inside the door
table properties of a table, size, which waiter etc.

Room here for plenty of more details

(c) Modern objected oriented languages have greater power and are more convenient to use. Threads in Java can be used to provide the coroutine mechanism useful in discrete event simulation. Packages for random number generation and priority queue are easily provided.