

### Appendix A Partial Output for the Normal Scenario in Example 1

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map(0, 2)
map(1, 11)
map(2, 19)
map(3, 20)
map(4, 31)
occurs(select(nicole, satiated_and_out(nicole)), 0)
occurs(start(nicole, c_act(nicole, veg_r, waitress, lentil_soup)), 1)
occurs(go(nicole, veg_r), 2)
occurs(select(waitress, served_and_billed(nicole)), 3)
occurs(start(waitress, w_act(waitress, nicole, lentil_soup, lentil_soup)), 4)
occurs(greet(waitress, nicole), 5)
occurs(lead_to(waitress, nicole, t), 6)
occurs(sit(nicole), 7)
occurs(start(nicole), c_subact_1(nicole, lentil_soup, waitress)), 8)
occurs(pick_up(nicole, m, t), 9)
occurs(put_down(nicole, m, t), 10)
occurs(order(nicole, lentil_soup, waitress), 11)
occurs(stop(nicole, c_subact_1(nicole, lentil_soup, waitress)), 12)
occurs(move(waitress, t, kt), 12)
occurs(request(waitress, lentil_soup, cook1), 13)
occurs(select(cook1, done_with_request(cook1, waitress)), 14)
occurs(start(cook1, ck_act(cook1, lentil_soup, waitress)), 15)
occurs(prepare(cook1, lentil_soup, waitress), 16)
occurs(stop(cook1, ck_act(cook1, lentil_soup, waitress)), 17)
occurs(pick_up(waitress, lentil_soup, kt), 17)
occurs(move(waitress, kt, t), 18)
occurs(put_down(waitress, lentil_soup, t), 19)
occurs(eat(nicole, lentil_soup), 20)
occurs(start(nicole, c_subact_2(nicole, waitress)), 21)
occurs(request(nicole, b, waitress), 22)
occurs(move(waitress, t, ct), 23)
occurs(pick_up(waitress, b, ct), 24)
occurs(move(waitress, ct, t), 25)
occurs(put_down(waitress, b, t), 26)
occurs(stop(waitress, w_act(waitress, nicole, lentil_soup, lentil_soup)), 27)
occurs(pay(nicole, b), 27)
occurs(stop(nicole, c_subact_2(nicole, waitress)), 28)
occurs(stand_up(nicole), 29)
occurs(move(nicole, t, entrance), 30)
occurs(leave(nicole), 31)
occurs(stop(nicole, c_act(nicole, veg_r, waitress, lentil_soup)), 32)

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