











MELTDOWN & SPECTRE FOR NORMAL PEOPLE

CONFIDENTIAL BURGERS INC. : PARALLEL, OUT OF ORDER EXECUTION



Customer

Waiter









Pizza oven

Burger grill



Coffee machine





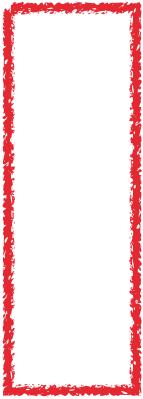




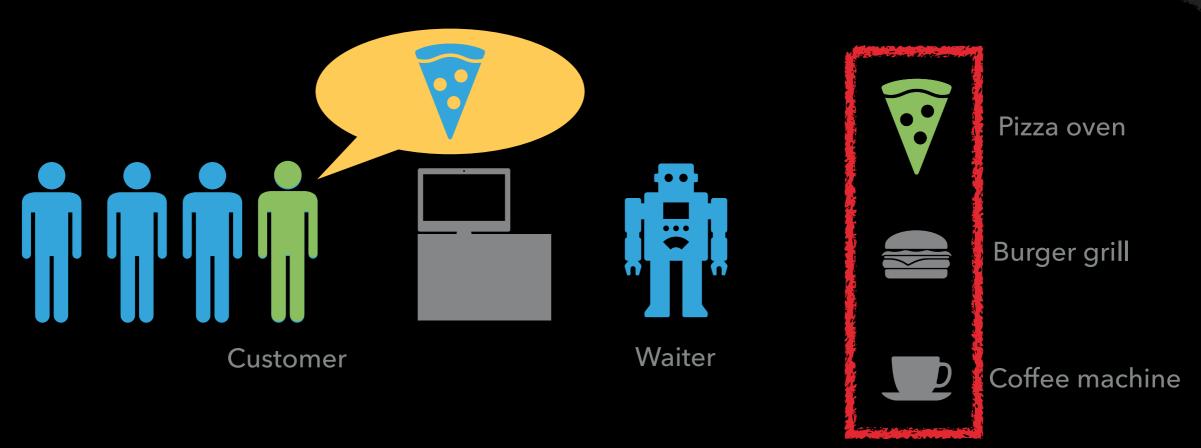


Multiple customers' orders <u>executed in parallel</u> and <u>delivered</u> (retired) in order I.e. multiple orders prepared at the same time PRO: Faster because resources are utilised even better CON: More difficult to implement

¹ this is called *superscalar*



CONFIDENTIAL BURGERS INC. : PARALLEL, OUT OF ORDER EXECUTION

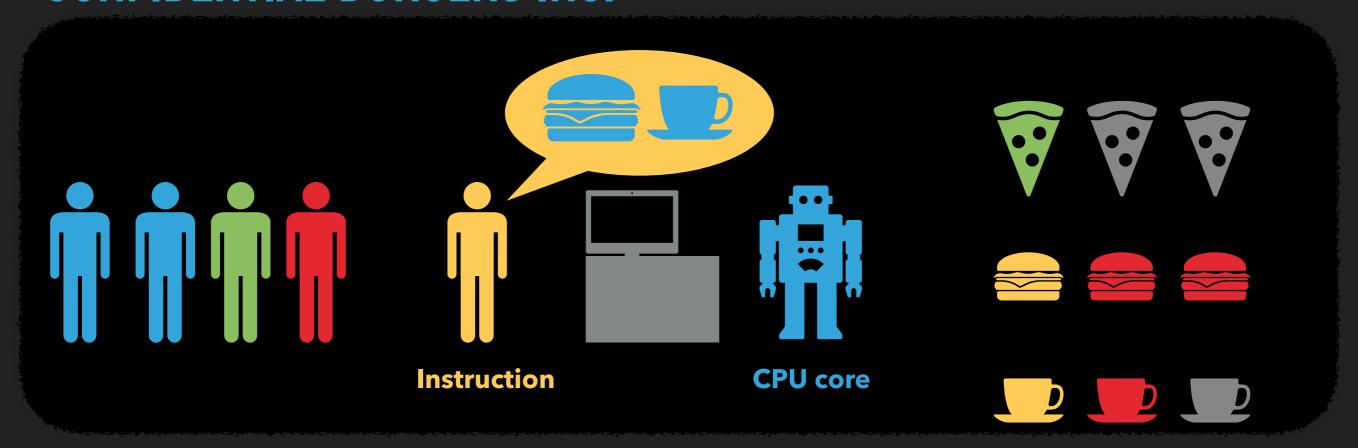


▶ Multiple customers' orders <u>executed in parallel</u>¹ and <u>delivered</u> (retired) <u>in order</u>

I.e. multiple orders prepared at the same time

- PRO: Faster because resources are utilised even better
- CON: More difficult to implement

CONFIDENTIAL BURGERS INC.



Adding more resources increase parallelism & throughput. This is all on one CPU core.