











MELTDOWN & SPECTRE FOR NORMAL PEOPLE

CONFIDENTIAL BURGERS INC. : PARALLEL, IN ORDER EXECUTION





Customer

Waiter









Pizza oven

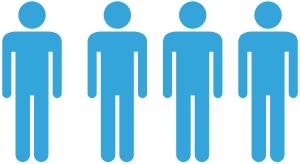
Burger grill



Coffee machine







- One customer¹ after another (<u>in order</u>)
 Each part of the order ² executed <u>in parallel</u>
- I.e. burger and coffee prepared at the same time
 - DDO. Footor ha of however recovered utilization
- PRO: Faster bc. of better resource utilisation.
- CON: Still not perfect, more complex

Decode instruction into μOPs



run 1st μOP and 2nd μOP (<u>parallel</u> execution of μOPs)

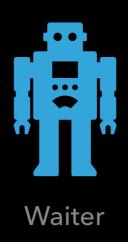
retire instruction (customer)

▶ Decode instruction into µOPs ► Schedule µOPs run 1st μOP and 2nd μOP (<u>parallel</u> execution of μOPs) retire instruction (customer)

CONFIDENTIAL BURGERS INC.: PARALLEL, OUT OF ORDER EXECUTION









Pizza oven

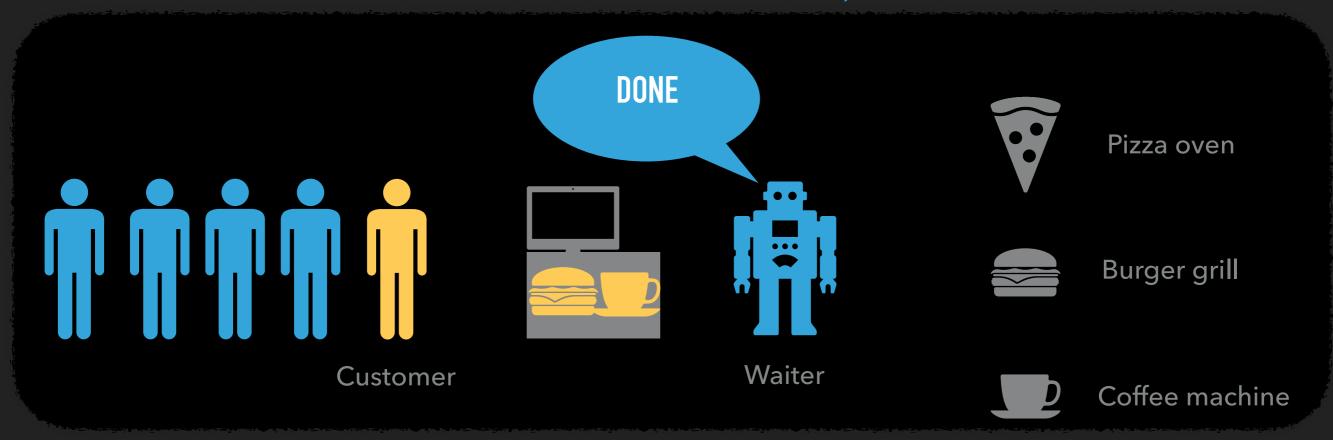


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