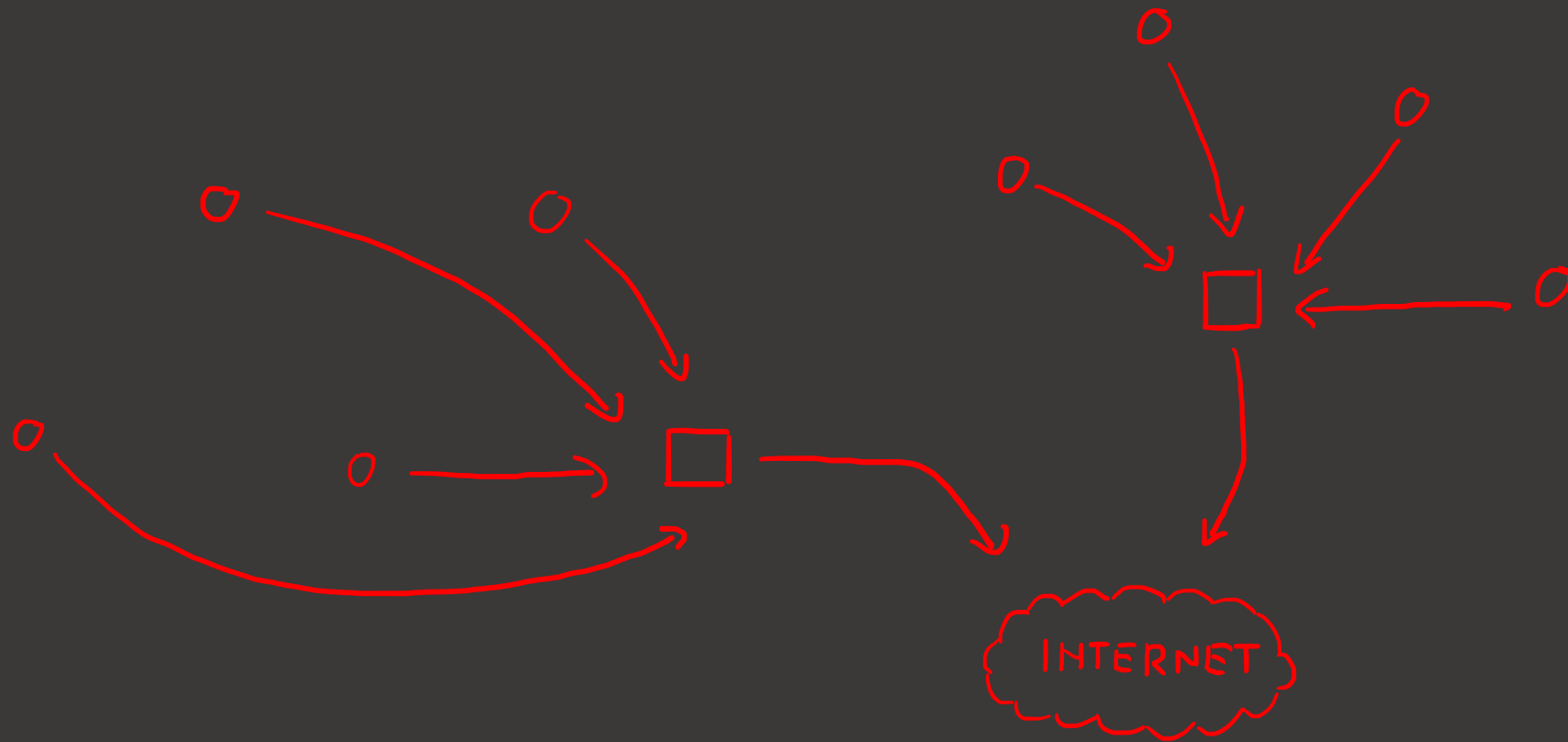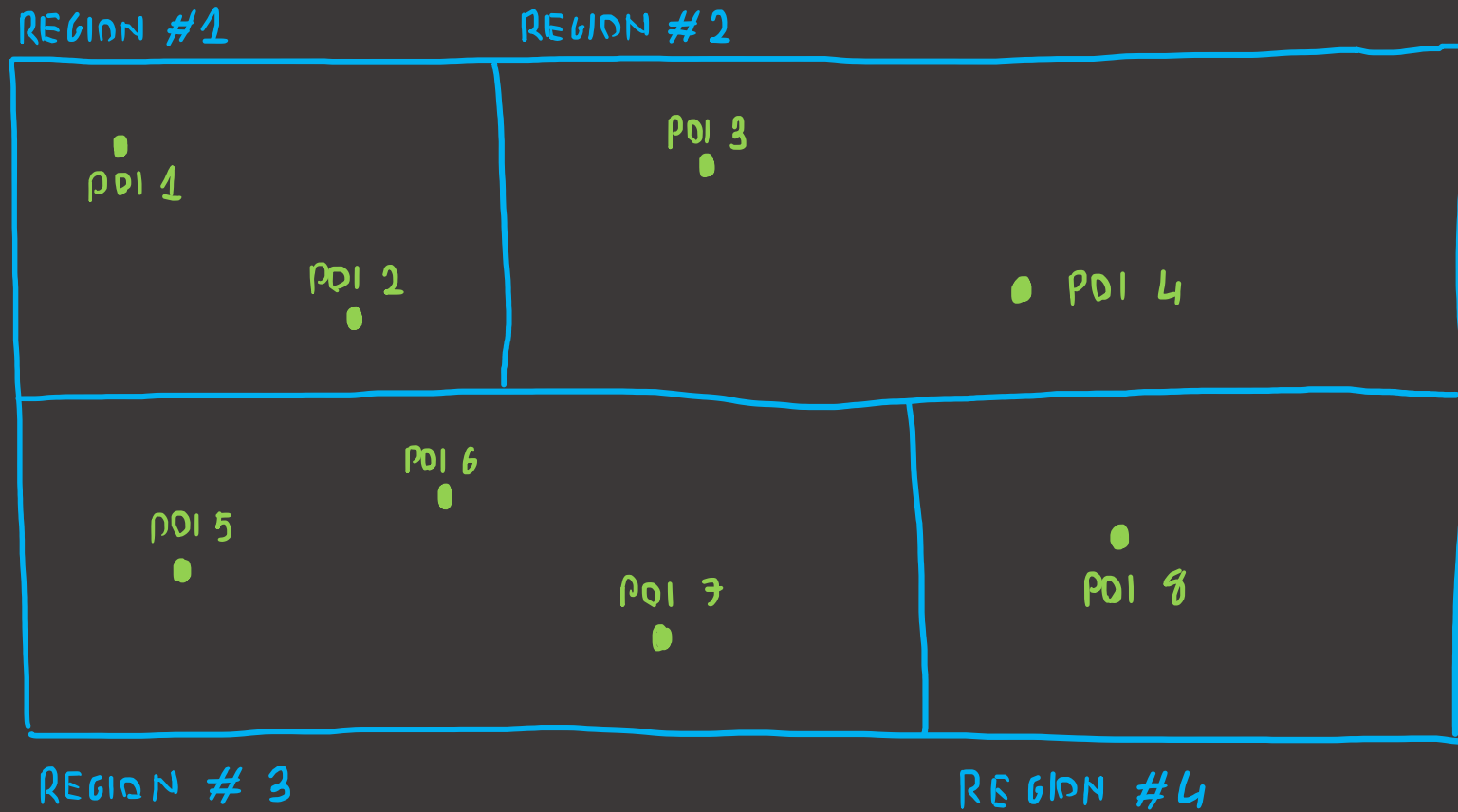# PROJECT 1

INPUT DATA (FROM SENSORS WITH CONTIKI-NG) :   COORD. PAYLOAD

INTERNET

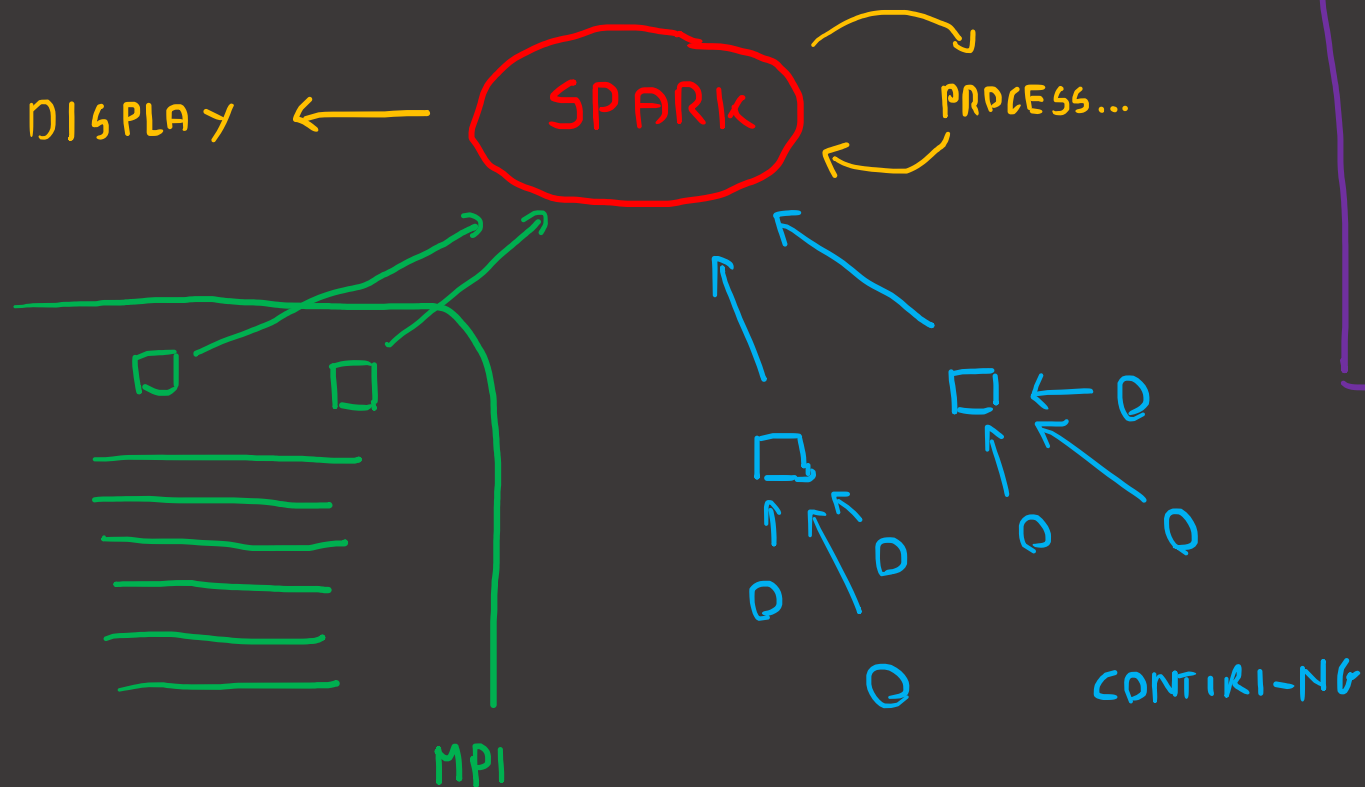# PRE-MEMORIZED DATA (ON BACKEND):

DATA PROCESSING (IN SPARK):

INPUT RECORD | COORD. | PAYLOAD |

OUTPUT RECORD | REGION | POI | PAYLOAD |

- USING | COORD. | IDENTIFY | REGION |

- THEN CALCULATE THE DISTANCE FROM | COORD. | TO EVERY | POI | IN | REGION |

- ONCE ALL DISTANCES ARE CALCULATED, ADD THE NEAREST | POI | TO THE RECORD

- MAKE THE RECORD PERSISTENT

THE FINAL MODEL TAKES INTO ACCOUNT THE POSSIBILITY THAT A REGION DOESN'T ALLOW DATA COLLECTION. IN THIS CASE, INPUT RECORDS ARE GENERATED IN A SIMULATED MODEL (USING MPI) AND DIRECTLY SENT TO THE BACKEND.

DISPLAY ←

SPARK

PROCESS...

THE INTERFACE IS ALWAYS THE SAME. THE USE OF MPI IS TRANSPARENT TO SPARK.

MPI

CONTIRI-NG