

CPU City Solo Concept Development

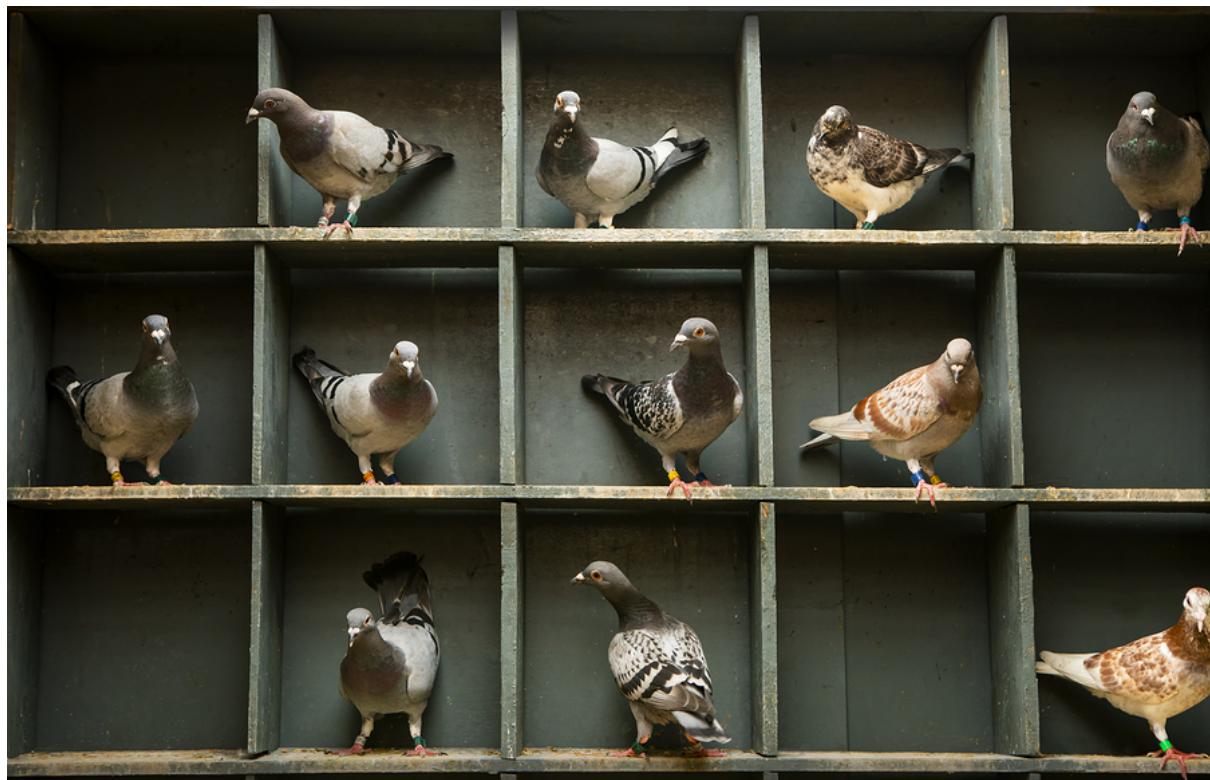
Further development of Teach GCSE Computing Game idea

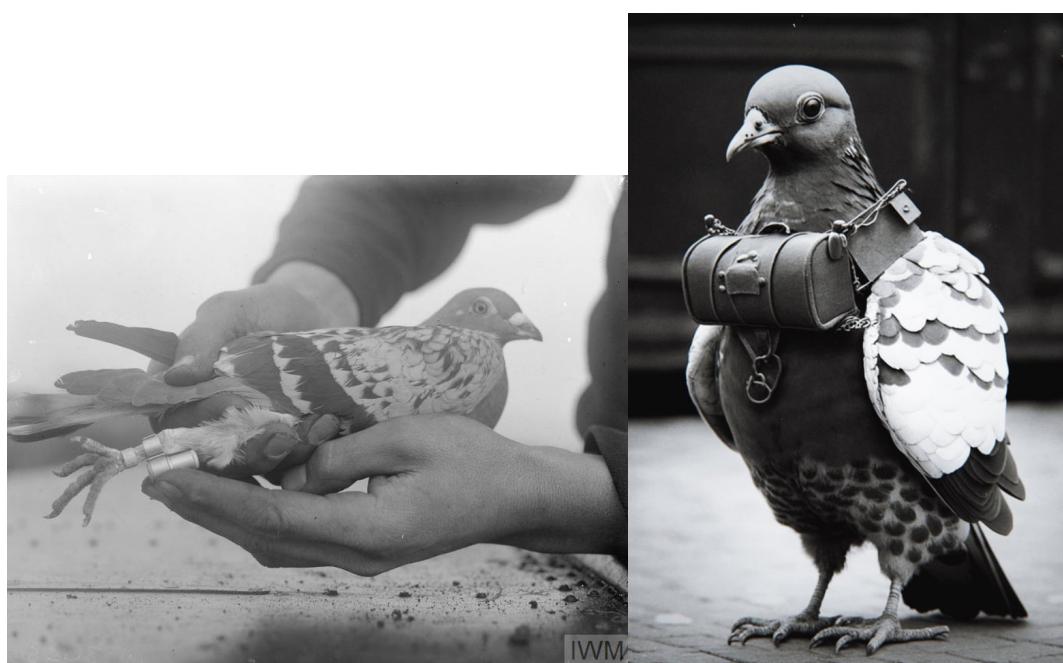
To meet the criteria for the group project, we could build a small part of the game, the first mini game, where the student has to build and connect up CPU city to earn the first ‘knowledge reward’.

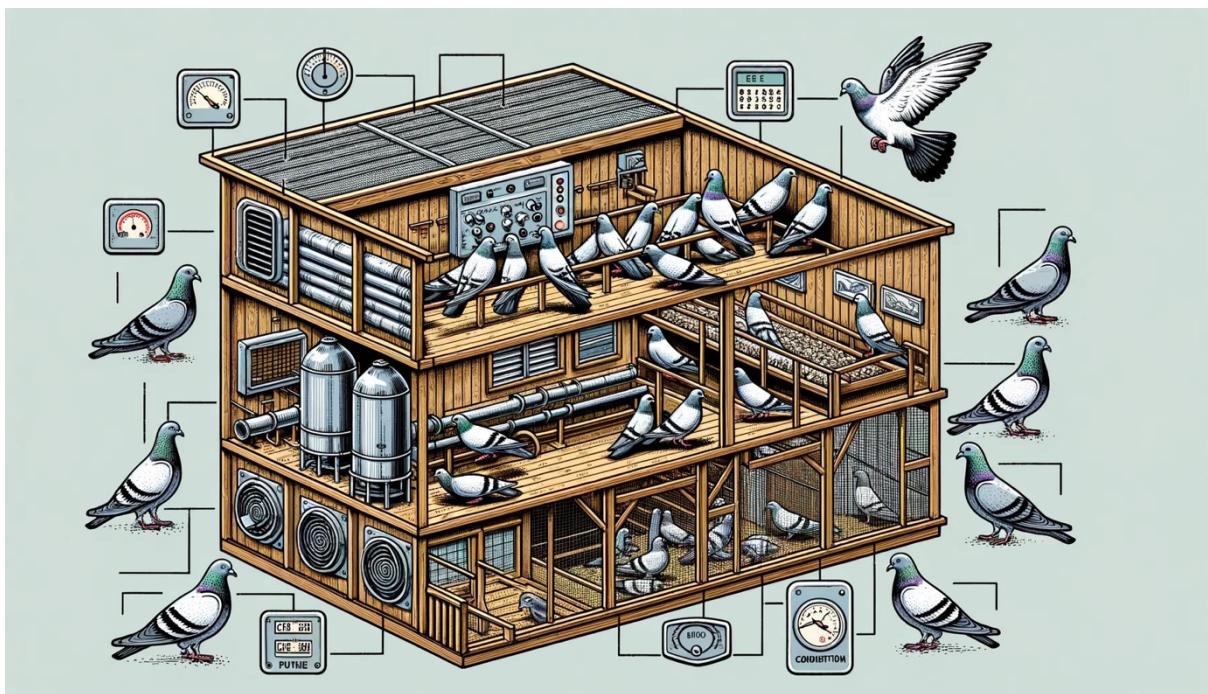
The student has to arrange city tiles correctly to connect up the RAM, Inbox, Outbox, ALU & Accumulator, Program Counter, Memory Address Register and Memory Data Register.

Once the city has been correctly build, the player must navigate the bus paths to follow a very simple program involving fetching, decoding and executing instructions sequentially fetched from RAM.

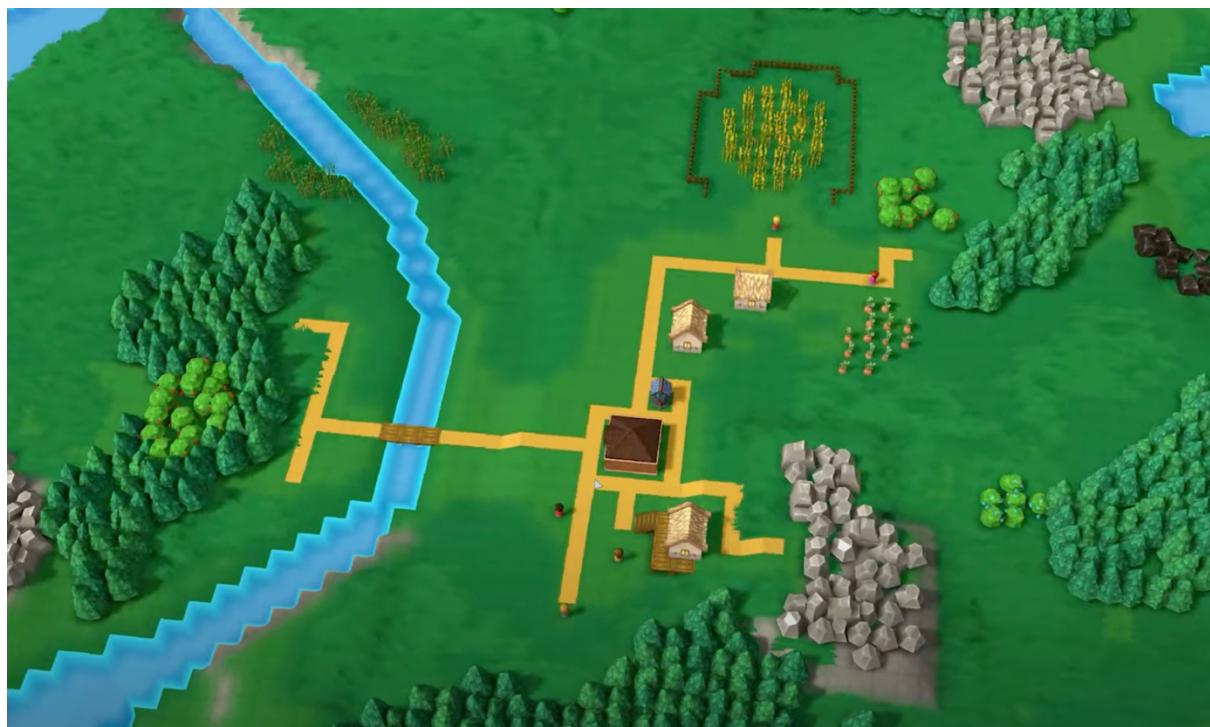
RAM is in the form of a messenger pigeon loft, the numbered pigeon holes are the memory addresses, the pigeons themselves carry the data. The data may need to be decoded to reveal another address/pigeon hole number. The player will need to revisit the pigeon loft numerous times, to collect each sequential instruction and to store or fetch data from other memory locations. This helps students grasp the concept of Von Neumann Architecture.







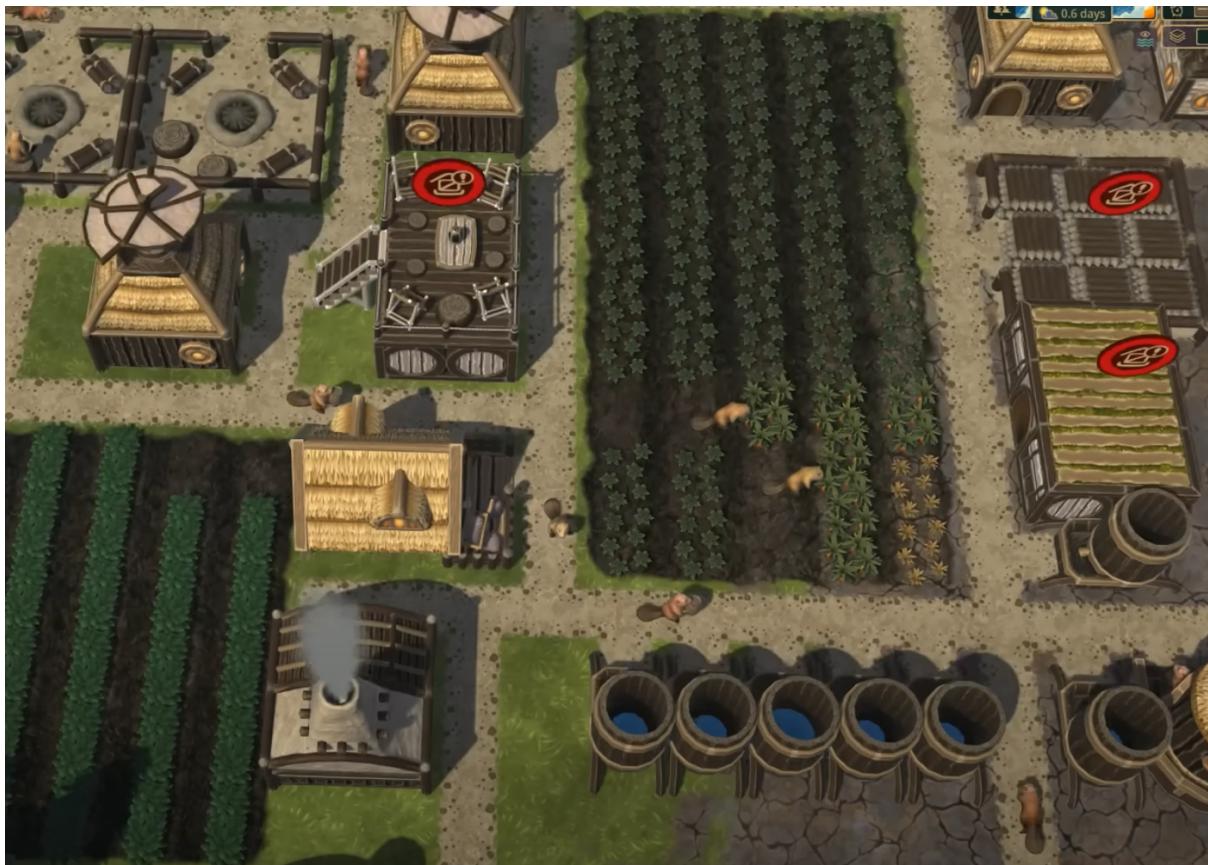
Factory Town





Timberborn





Dorffromantik

