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| Computer Systems 5 Fetch Execute | |  | Computer Systems 6 - Clock and speed |
| The Fetch -Execute Cycle  1. **CPU fetches the next instruction in the list from memory** 2. **The instruction is found at its address and then stored in binary** 3. What happens during each step of fetch-execute cycle? - SDD Preliminary  Course**CPU decodes the instruction and executes** | | The Clock Everything in a computer has to happen in a particular order and at a particular time. Everything must synchronise perfectly for the system to work.  The CPU has a “clock” controlling the timing of operations. This is a steady stream of pulses evenly timed (like the seconds hand on a clock)  CPU Speed: What Is CPU Clock Speed? | Intel  The speed of your CPU is determined by this clock  5 gigahertz is 5,000,000,000 instructions per second…….insane really |
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| Computer Systems 7 - Definitions | |  | Computer Systems 8 - Electronics |
| Fetch |  |  | Binary All information in a computer is in binary (1,0)  Everything is either an instruction for “on” or “off”, like a simple lightswitch. In real terms this is the turning on or off of an electrical signal…….or high or low voltage. Electric current The flow of electrons from one place to another Voltage Potential difference between two locations Resistance How much a material resists the flow of electric current |
| Execute |  |
| Decode |  |
| RAM |  |
| Clock |  |
| Clock speed |  |
| Motherboard |  |

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|  | How well did you remember this information? |  | How well did you remember this information? |
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| Revision 1  Revision 2  Revision 3 | | Revision 1  Revision 2  Revision 3 | |