

Second OS Concept: Program's Address Space

- **Address space \Rightarrow the set of accessible addresses + state associated with them:**
 - For a 32-bit processor there are $2^{32} = 4$ billion addresses
- What happens when you read or write to an address?
 - Perhaps Nothing
 - Perhaps acts like regular memory
 - Perhaps ignores writes
 - Perhaps causes I/O operation
 - » (Memory-mapped I/O)
 - Perhaps causes exception (fault)

