**Pipeline Functions:**

* **void** iplc\_sim\_dump\_pipeline()
  + Dumps the current contents of the pipeline
  + Uses switch case architecture
* **Void** iplc\_sim\_push\_pipeline\_stage()
  + Checks whether various stages of the pipeline require stalls or forwarding.
  + Checks writeback stage
  + Checks for branch and branch prediction
  + Checks for LW delays and data hits or misses
    - Adds delay cycles as necessary
  + Checks for SW memory access and data misses
    - Adds delay cycles as necessary
  + Increment pipeline\_cyrcles by 1
  + Push pipeline stages
  + Reset fetch stage to NOP
* **void** iplc\_sim\_process\_pipeline\_rtype(char \*instruction, int dest\_reg, int reg1, int reg2\_or\_constant)