CS 241 Section
(03/29/2012)
DS8 Outline

• MP6 Recap
• Common questions
• Conditional Variable
• Usage of access()
• Code examples
job1: job2 job3
   commandtoberrun withargs
   commandtoberrun2 withargs

job2:
   othercommand

job3:
   finalcommand
target

job1: job2 job3
commandtotoberun withargs
commandtotoberun2 withargs

job2:
othercommand

job3:
finalcommand
MP6

dependencies

job1: job2 job3
commandtoberun withargs
commandtoberun2 withargs

job2:
othercommand

job3:
finalcommand
MP6

job1: job2 job3
commandtoberun withargs
commandtoberun2 withargs

job2:
othercommand

job3:
finalcommand
MP6

• Part I
  – Parse the command line
• Part II
  – Parse the makefile
• Part III
  – Check the dependencies
• Part IV
  – Do the job
Common Questions

• How should I use parser_parse_makefile()?

• Why the contents of the queue are not right though I append the new job/dependency/target at the end?

• Why my semaphore is not working as I expected?
Conditional Variables

- Represent an arbitrary event
- Operations: Wait for event, signal occurrence of event
- Tied to a mutex for mutual exclusion
Conditional Variables

• Basic operations
  – Wait for event
  – Signal occurrence of event to one waiting thread
  – Signal occurrence of event to all waiting threads
Use of access()

• Basic operations
  – int access(const char *pathname, int mode);

• Mode:
  – F_OK
Coding Examples

• This week: $\text{ds/ds8/}$