

# 1 Process API

## Vocabulary

1. **Process Identifier (PID)**
  - Is an unique identifier for an active process
2. **CPU Scheduler**
3. **Concurrency**
4. **Deterministic**
5. **Non-deterministic**
6. **Multi-threaded Programs**
7. **Signal**
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## 1.1 `fork()` System Call

- Creates a new process
- Is an almost exact copy of the calling process
- **Parent** is the creator
  - Runs from `main()` (beginning of program)
- **Child** is the newly created process
  - Runs from `fork()` (where `fork()` occurs)

## 1.2 `wait()` System Call

- Forces parent to wait for a child process to finish its process

## 1.3 `exec()` System Call

- Does not create a new process
  - Current running program is overwritten
  - Code segment, heap, and stack are re-initialized

## Example