

# User-Level Memory Mapping

```
void *mmap(void *start, int len,  
           int prot, int flags, int fd, int offset)
```

- Map `len` bytes starting at offset `offset` of the file specified by file description `fd`, preferably at address `start`
  - `start`: may be 0 for “pick an address”
  - `prot`: `PROT_READ`, `PROT_WRITE`, ...
  - `flags`: `MAP_ANON`, `MAP_PRIVATE`, `MAP_SHARED`, ...
- Return a pointer to start of mapped area (may not be `start`)

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