User-Level Memory Mapping

- Map len bytes starting at offset offset of the file specified by file description for preferably at address start
 - start: may be 0 for "pick an address"
 https://tutorcs.com
 - prot: PROT_READ, PROT_WRITE, ...
 - flags: MAP_AMON (MAR: PRWATE) MAP_SHARED, ...
- Return a pointer to start of mapped area (may not be start)

User-Level Memory Mapping

file descriptor fd

```
void *mmap(void *start, int len,
             int prot, int flags, int fd, int offset)
                Assignment Project Exam Help
                                                      len bytes
                     https://tutorcs.com
                                                        start
                     WeChat: cstutores
                                                       (or address
 len bytes
                                                    chosen by kernel)
offset
(bytes)
         Disk file specified by
                                     Process virtual memory
```