Lab 7: Scheduler Part 1

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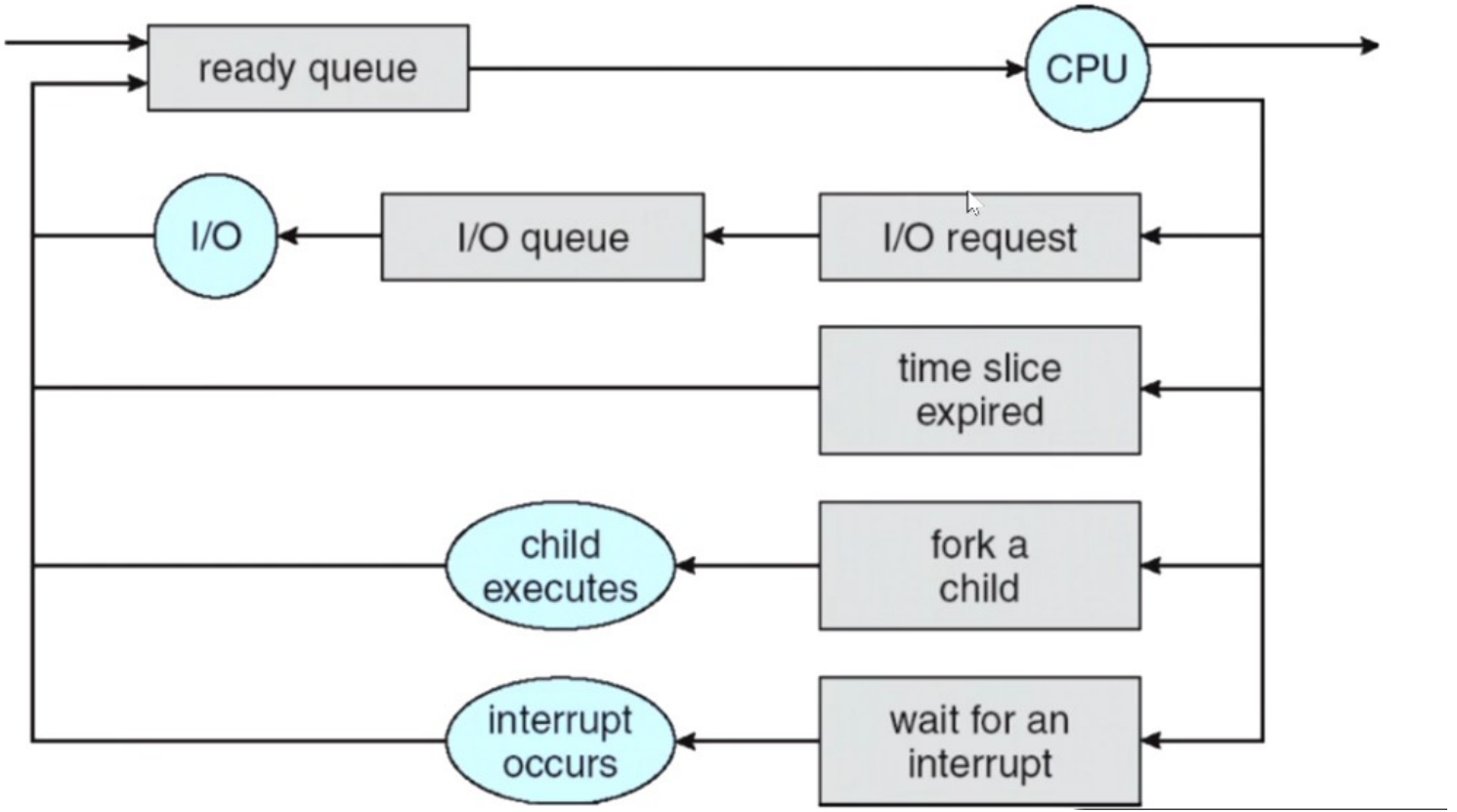
Primer

- FCFS
- SJF
- PSJF
- PRI
- PPRI
- RR

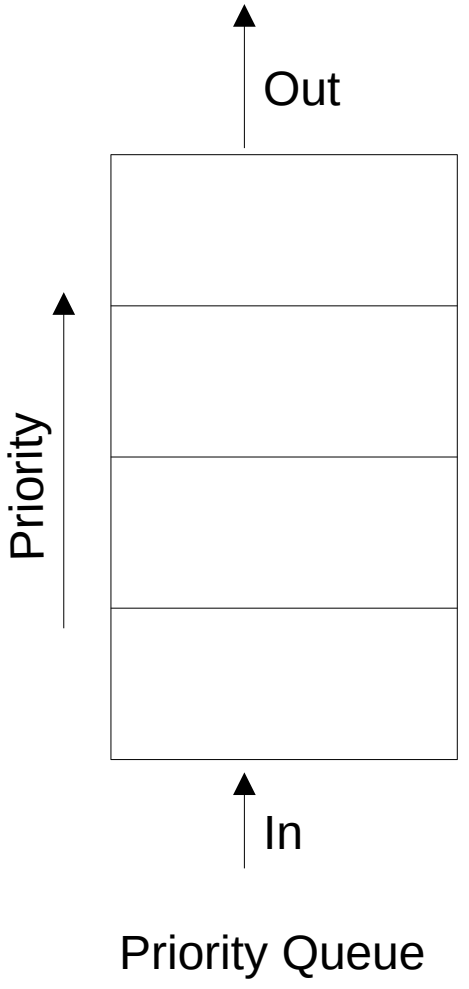


Project Repository

- libpriqueue
  - libpriqueue.c (update this file)
  - Libpriqueue.h (Might have to update this file)
- queuetest.c (no need to change)

libpriqueue.h

```c
/** @file libpriqueue.h
 */

#ifndef LIBPRIQUEUE_H_
#define LIBPRIQUEUE_H_

/**
  Priqueue Data Structure
*/
typedef struct _priqueue_t
{

} priqueue_t;


void   priqueue_init     (priqueue_t *q, int(*comparer)(const void *, const void *));

int    priqueue_offer    (priqueue_t *q, void *ptr);
void * priqueue_peek     (priqueue_t *q);
void * priqueue_poll     (priqueue_t *q);
void * priqueue_at       (priqueue_t *q, int index);
int    priqueue_remove   (priqueue_t *q, void *ptr);
void * priqueue_remove_at(priqueue_t *q, int index);
int    priqueue_size     (priqueue_t *q);

void   priqueue_destroy  (priqueue_t *q);

#endif /* LIBPQUEUE_H_ */
```



Compare Function

- int comparer(const void* elem1, const void* elem2);
- Parameters
  - Typecast the parameters into suitable types
  - Then compare based on some attribute of elements
  - Attribute: arrival time, running time, priority
- Return Value
  - elem1 < elem2 : return negative
  - elem1 == elem2 : return 0
  - elem1 > elem2 : return positive