

HOMework REPORT

In this homework, we tried to find a solution about “Dining Philosophers” problem. We used “Chandy/Misra” solution. In this report, we are going to explain our solution method.

```
def eat_chandy_misra(self):  
    with self.left_fork.lock:  
        self.left_fork.request(self.index)  
    with self.right_fork.lock:  
        self.right_fork.request(self.index)  
        if self.left_fork.owner == self.index and self.right_fork.owner == self.index:  
            self.left_fork.grant()  
            self.right_fork.grant()  
            self.eat()  
        else:  
            self.left_fork.release()  
            self.right_fork.release()
```

This is our Chandy/Misra function. There are some steps in this function above.

1. Acquiring the Left Fork: The philosopher first attempts to acquire the left fork's lock using a with statement (with self.left_fork.lock:). This ensures that access to the left fork is properly synchronized.
2. Requesting the Left Fork: The philosopher then requests the left fork by calling the request(self.index) method on the left fork object. The philosopher's index is passed as an argument to identify itself.
3. Acquiring the Right Fork: Next, the philosopher attempts to acquire the right fork's lock using a nested with statement (with self.right_fork.lock:).
4. Requesting the Right Fork: Similar to the left fork, the philosopher requests the right fork by calling self.right_fork.request(self.index).

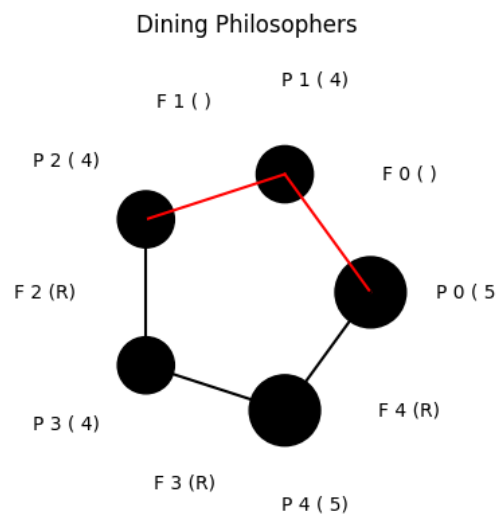
- Here are some outputs on this solution

— ☐ ☒ ☐



Figure 1

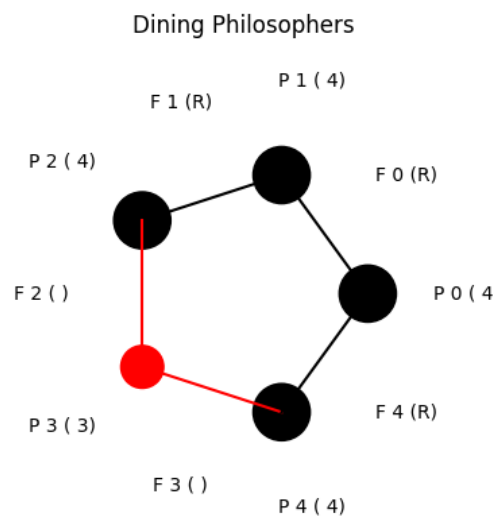
— □ ×



x=-0.887 y=0.587

Figure 1

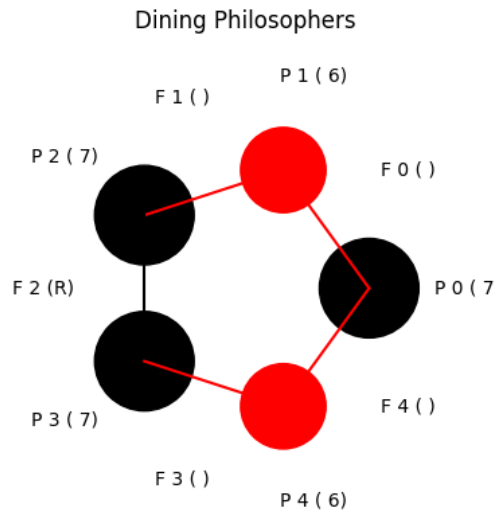
— □ ×



x=0.709 y=0.679

Figure 1

— □ ×



⏮ ⏪ ⏩ ⏭ 🔍 ⏮ ⏭ x=-0.931 y=0.992

Kadir KARADUMAN 190315005

Evren YALNIZ 190315019

Berke YILDIZ 190315048