**Examples Of DeadLock:**

For this scenario, the deadlock will occur if the customer ends up waiting for the barber and the barber ends up waiting for the customer to arrive.

**Solution:**

By using wait() and notify() functions, when there’s no customers in the shop the barber will wait till a new customer enters and then notify() the barber to wake up thread and continue executing the program

And if there are lots of customers waiting in a queue so barber thread won’t sleep and continue executing till finishing the customers in the customers list

**Examples of Starvation:**

If using the wrong data structure(such as : Stack, Priority Queue) in saving and serving the customer it mat lead to some customers may not be served at all

**Solution:**

Use the correct data structure such as normal queue or linked list so that all customers has the same priority an the first come customer is the first served

**Applications:**

1)Printer in the department which all the employees in the department use it, so it’s possible for 2 or more employees to send their papers to print at the same time so the sleeping barbers solutions is used to solve this problem

2) [call center](https://www.smartcapitalmind.com/what-is-a-call-center.htm) for a company is inundated with inbound calls from customers who want help now, but the number of [customerservice](https://www.smartcapitalmind.com/what-is-customer-service.htm) representatives is not sufficient to keep up with the demand, then a portion of those customers will abandon their calls and possibly seek a relationship with a competitor.