

# System of preventing occupied seat in Library

열람실 사석화 방지 시스템

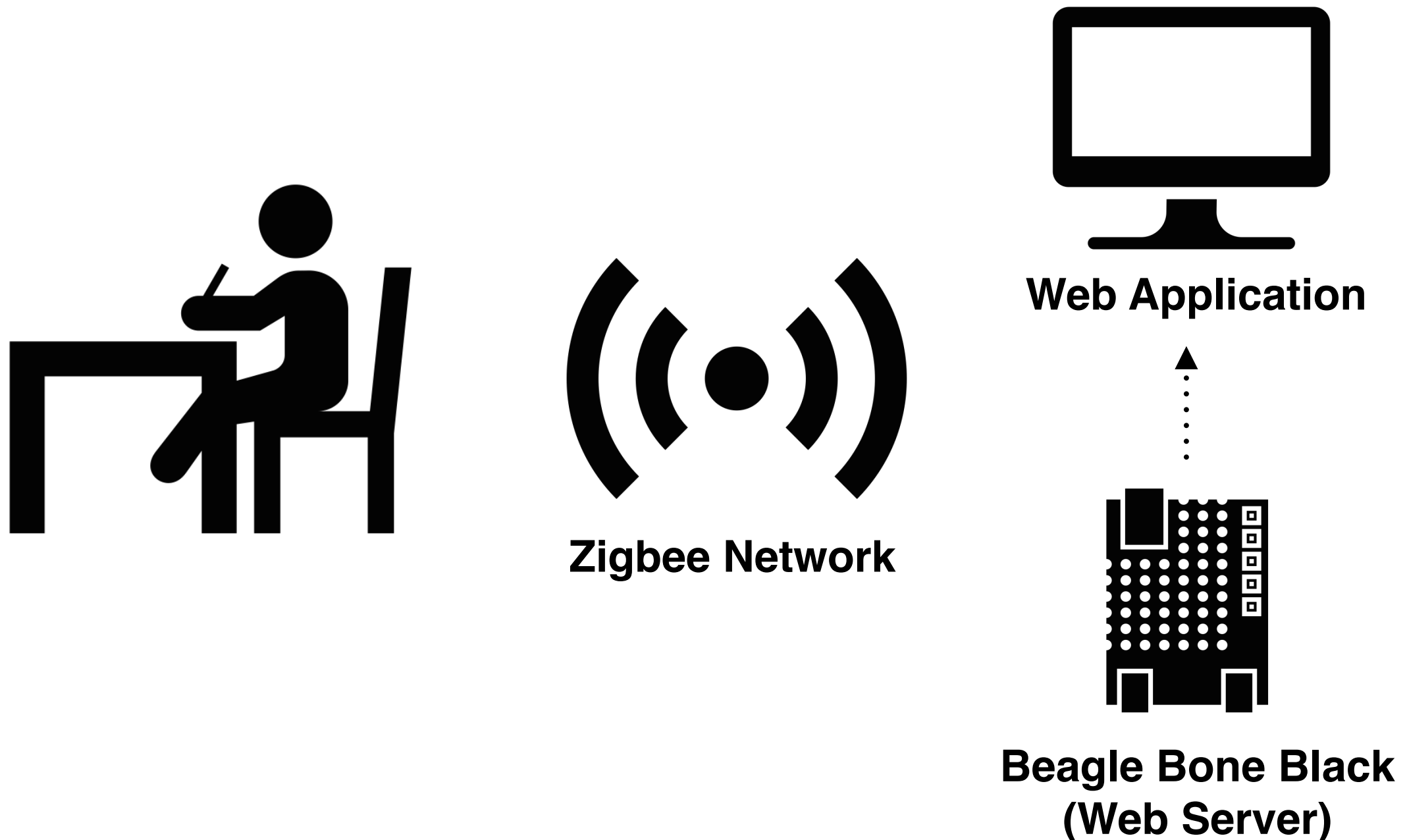
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# Purpose



- ✦ 비지정 좌석제 열람실의 자리를 선점한 후 장시간 자리를 비우는 문제가 발생
- ✦ 일정한 시간이 지나면 짐을 치우고 좌석을 사용할 수 있으나, 정확한 시간을 알기 어려움

# System Architecture



# Detail Information

## ✦ GL5537(CdS 센서)

밝기에 따라 저항값 변화

$R1 = 1K, R2 = CdS$

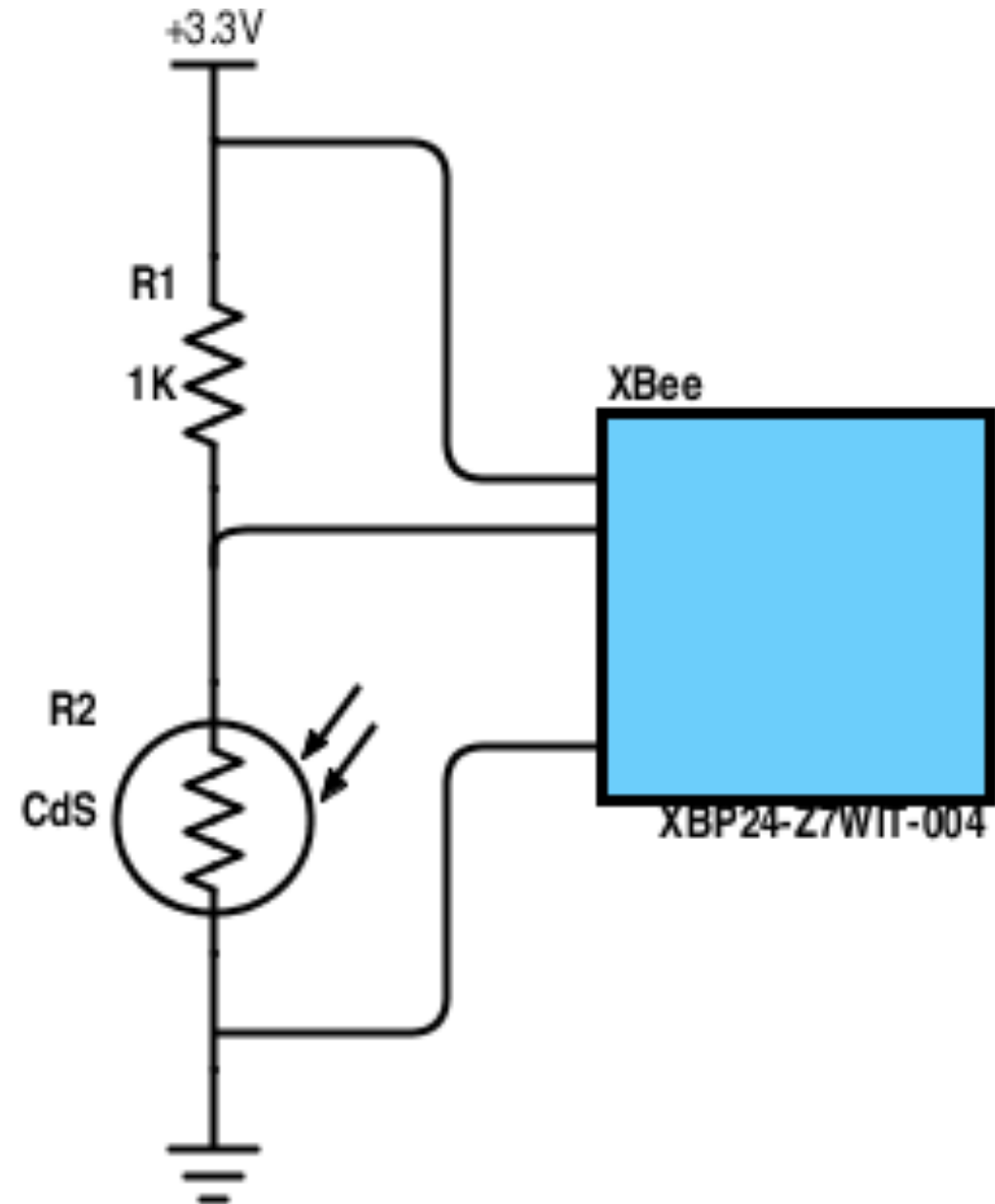
$$\Rightarrow V_{out} = V_{cc} * (R2 / (R1 + R2))$$

## ✦ Xbee Pro(무선 네트워크 모듈)

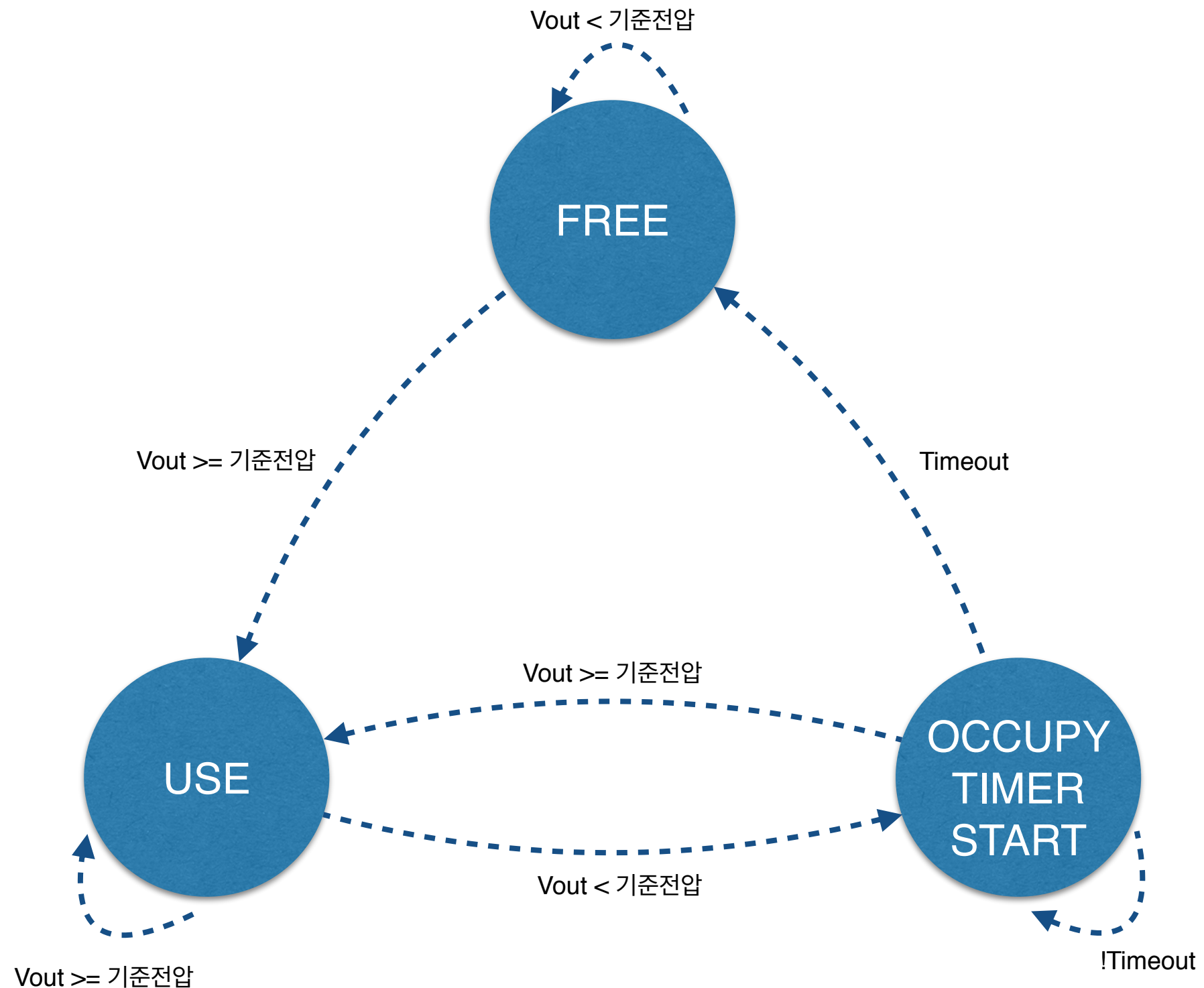
I/O핀의 ADC를 지원

센싱데이터를 비글본으로 전송

/dev/ttyO\* 를 통하여 통신



# Detail Information



# Format of XML

<?xml version="1.0" encoding="utf-8" ?>

<seats>

    <seat name="(seat Number)">

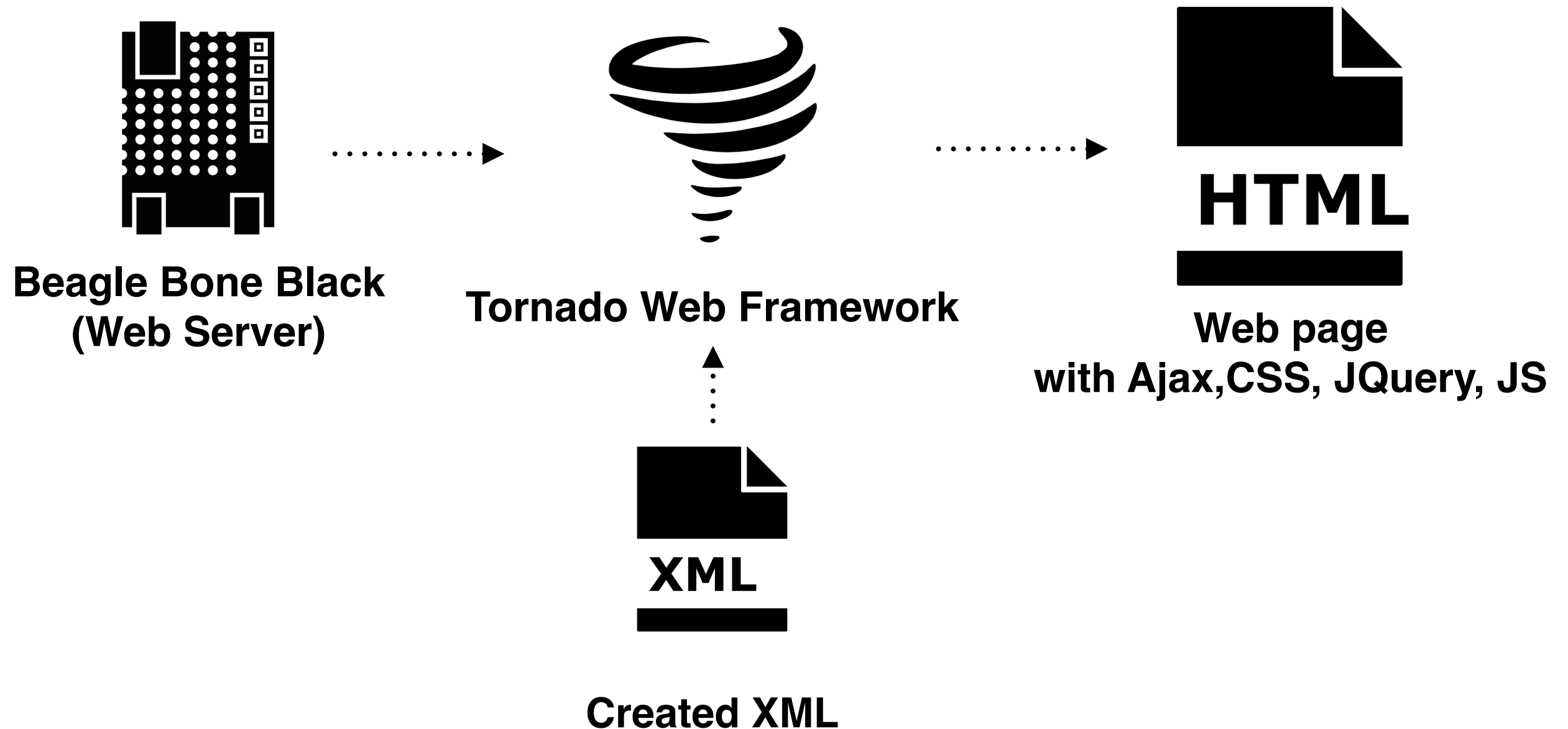
        <number> (The number of seat) </number>

        <type> (The state of seat) </type>

    </seat>

</seats>

# Detail Information



# Screenshot

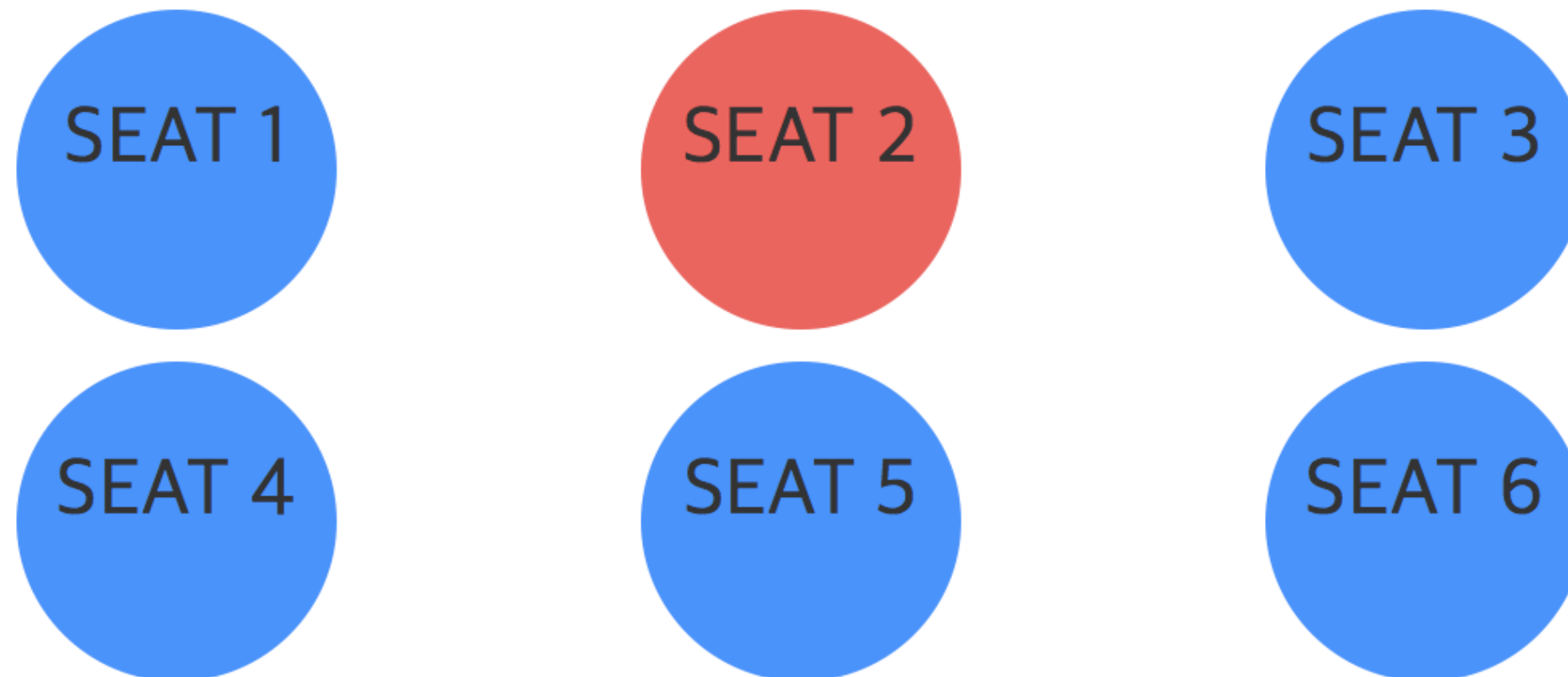
**Librarian** Where is my seat?

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There is no person : Blue | There is someone who use this seat : Red | There is someone who occupy this seat : Yellow

**Seat State**

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Q & A

Thank you