

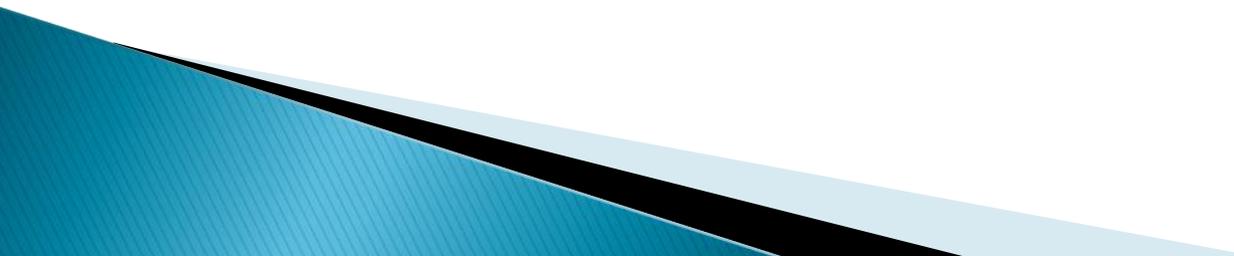


***FIT-A-LOT***

**Group #: 5**

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# Problems

- Inefficient use of employee resources
  - Filling up parking garages inefficiently
  - Only select garages allow for online reservations
  - Automating statistics
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# What makes us unique

## ➤ Professional Website

- Create User Account Information
- Create reservations online

## ➤ Valet Assistant Interface

- Provides an easy to use interface to quickly collect information and provide notifications to the valet
- Apple and Android capabilities

## ➤ Garage Management System

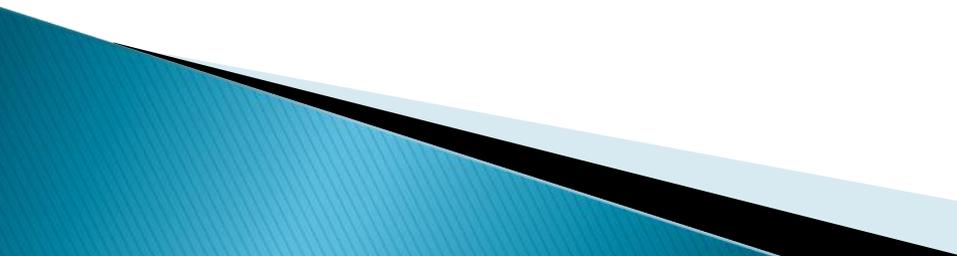
- Assigns lot numbers for maximum occupancy

# Sorting

- ▶ Check space between reservations
- ▶ Counter to minimize wasted space
- ▶ Choose optimal reservation to sort

```
int count =0;
for (i =0;i <parkingSize; i++) {
    //check the # of time units before
    after the time reservation
    //assign the lower value to timeC
    if ( parkingID[i][0] ==0 && count
timeCheck) { // initial condition ch
        for( int j = 0; j < timeLength
{ // check that reservation will fit
new slot
            if(parkingID[i]
[timeStart+j] != 0) {
                goto failure;
            }
        }
        //insert reservation at th
time;
        //if previous statement
completes
        for( int j = 0; j < timeLe
j++) {
            parkingID[i][timeStart+
resType;
```

# Technical Challenges

- Creating an App for both the customer and the valet
  - Will reduce customer–employee interaction
  - Will speed–up the process of parking with a guarantee of no damage done
  - Creating a Website for customers to reserve spots before hand
  - Creating an algorithm to optimize ALL THE SPOTS in the parking garage
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# What we plan on doing

- Implement a functional map which displays the available spots and the number occupied spots
  - Complete implementation of the sorting algorithm
  - Have a fully functional reservation system
  - Complete Integration Testing
  - Have management page (COOKIE implementation)
  - More security on website
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