소프트웨어학과

Requirements For Term-Project

Software Engineering

박태신 신지식 정유석 전주희

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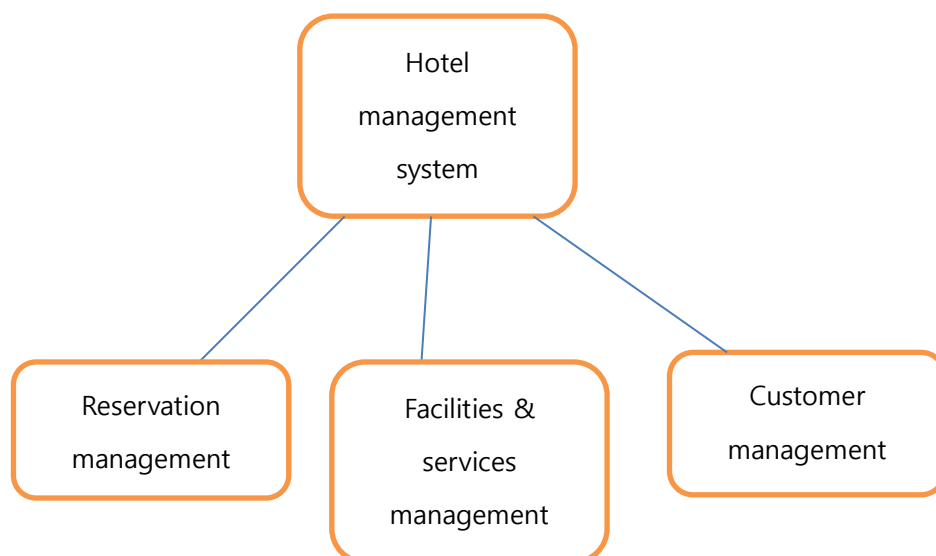
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1. Introduction

There are lots of hotel reservation systems but sometimes we have difficulty using those systems. They have some useless and complicated functions and we sometimes think there would be some additional functions. So we decided to make our own identical hotel reservation system.

To manage customers' reservation and help customers use hotel facilities and services easily we'll make a comfortable and transparent hotel reservation system.

Our system offers managing reservation, customers' check in and out, their stuffs, use of facilities and services, and lists of customers, etc.

2. Project Outline

3. Requirement

3.1 User Requirement

3.1.1 Security

1) Login ID and password

    - Do not allow if the ID does not exist or the ID and password do not match.

2) Modify password

    - Only after entered with right password, user can modify the password.

3) Check in and out / Use of services

    - Check customer information before accept requests.

3.1.2. Manager

1) Can read part of customer information

    - Reservation number, customer's name, the last part of phone number (010-****-1234)

    - Do not show private information like ID number.

2) Customer management

    - Let customers to check in and out only if the information is checked right.

    - Make black lists of customers and prevent those customers from reserve or use facilities by the level.

    - Manage chatting board – delete reported posts and restrict the writer.

3) Manage attraction information to recommend to customers

4) Manage stuffs

    - Let only the customers who have matched key number get the stuff.

        - Show the list of stuffs and matched customer information

5) Manage facilities and services

        - Manage swimming pool, bar, café, and cleaning service

6) Search

        - Search by customers' name

        - Search by customers' part of phone number

        - Search by reservation number

7) Sort

        - Sort by time

        - Sort by customers' name

        - Sort by customers' level

3.1.3. Customer

1) Show information of recommended attraction lists

2) Log in and out

        - Can log in and out with permitted ID and password.

3) Reservation

        - Select day

        - Select time

        - Select the number of people

        - Select room options

        - Show available rooms' information and cost.

4) Payment

      - Select the method of payment

5) Use facilities and services

3.2 System Requirement

3.2.1 Functional requirement

Login

Function	Login
Description	This will accept new user and check the Id and Password and also can find Id and Password when user forgets.
Inputs	User's Id and Password, for new users name, personal id, task, sex, address, Id, Password, phone number, email
Source	Check if the user is in this system or not, and also for new user let the user register
Outputs	It shows available access, or not a member of this system.
Action	If user is already registered, check if the user's id and password matches the database, else show that it is not available value. If the user is a new person to register, check his/her name and a personal id to determine if the person exists.When the person is identified get the user information and give access authority and finally finishes register. And if the user wants to find his/her Id or Password ask a basic information and let the user find his/her Id and Password.

Requirements Check Both Id and Password to determine if the person is in the database system. |

Pre-condition	The person should exist in the real word.
Post-condition	When person registers, the person can be replaced with his/her Id.
Side effects	None

Customer Management

Function	Customer Management
Description	This function provides service to customer who doing Check-in, after Check-in, and Check-out.
Inputs	User's come and something that certified customer to check reservation.(Customer name, Reservation number, Phone number)
Source	Check correct reservation with customer identity. If correct, provide several services to customer. If not correct, reject visitor.
Outputs	Provide services to Customers. Manager manages Customers.
Action	Manager checks customer who do reservation with correct room. If visitor's information(name, phone number, reservation number) doesn't match with reservation database system, reject visitor. If visitor's information does match with reservation database system, 1. Manager gives key to customer and guide to room. 2. Recommend attraction near hotel. 3. Provide meeting service to customers who want to communicate with other customers at facility.

	After check-out, Manager can register customer(who do bad action) to black-list.
Pre-condition	The Customer should come hotel to do check-in.
Post-condition	After Customer registers, the customer can request for room change when room doesn't satisfied customer.
Side effects	Black-list

Reservation Management

Function	Reservation Management
Description	Provide Reservation system. Person who wants to reservation should Log-in. Need person's information and specify room and date information to reserve room.
Inputs	User's information(Retrieve from Log-in information). Choose room type, date, duration, and Shuttle bus use. Deposit for reservation with card or check.
Source	Available when user clicks reservation.
Outputs	When deposit is confirmed, Reservation system checks the room and delete the room from empty rooms. When reservation is completed, user receives reservation number.
Action	Log-in User can reservation room. Input room type, date, duration, and Shuttle bus use. If one of inputed data is not valid, reject request and user re-reservation. If inputed data is valid, reservation process go deposit request.

	If user wants to take Shuttle bus, show time-table and space to take bus. User can choose deposit type(card or bank - account). After deposit complete, System provide reservation number.
Pre-condition	User should register on the database system in advance.
Post-condition	It should not conflict each room with duration and date.

Stuff management

Function	Stuff management
Description	This will manage user stuff. So It receives reservation for leave stuff and manage with safe deposit box.
Inputs	Type of user stuff, Date, Time, Weight.
Source	Check if the user apply to leave stuff, Date and Type of stuff, Time.
Outputs	It shows available to leave stuff, or not of this system.
Action	If user want to leave stuff, user request to system. (User must input type, date, type of stuff, weight) And System check that available to leave stuff or not. If hotel is possible to leave stuff than system notify to customer. And then system notify to manager. Manager checks this user demands, and supply service. System show how to deals with leave stuff.
Pre-condition	Customer should request to system leave stuff and hotel ready to leave stuff.

Post-condition	When customer request to system, the customer can be leave stuff in limited time.
Side effects	None

Room management

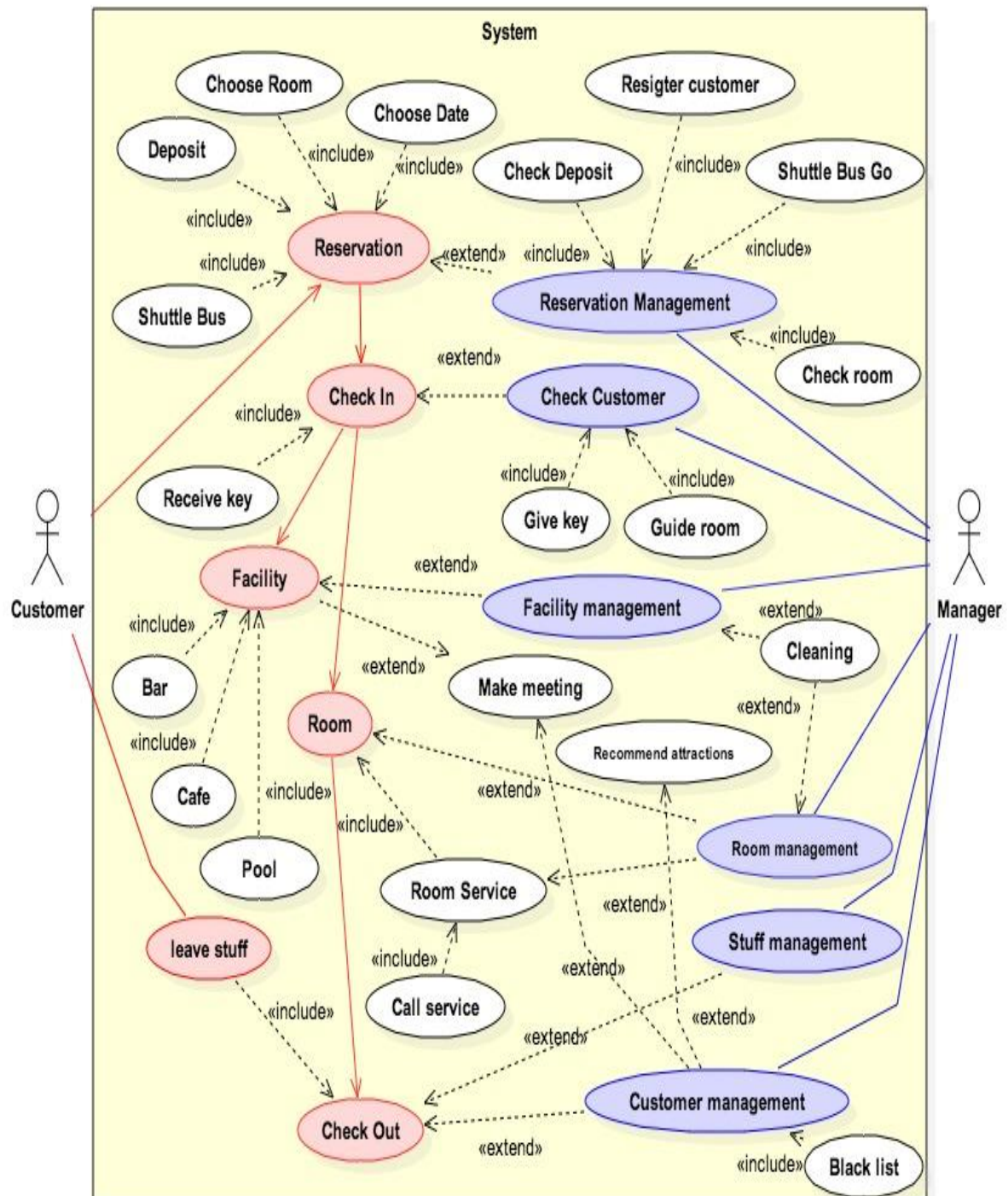| Function	Room management
Description	Manager will manage the room information. If the room is cleaning is OK, this system will inform this room is reservable. He will check the room service of user request
Inputs	Manager's ID
Source	Current state of room cleaning, and room service.
Outputs	It will show available room to manager and room service of user request
Action	(1) Check the room is cleaning complete. If it's clean, it will inform manager to available. If it's not clean, it will inform manager to not available. (2) Check the information of room service. If in request, manager will act the room service. If in not request, nothing.
Pre-condition	Manager should log in this system
Post-condition	After manager check the information, He should update room information or do the request
Side effects	None

Facility management

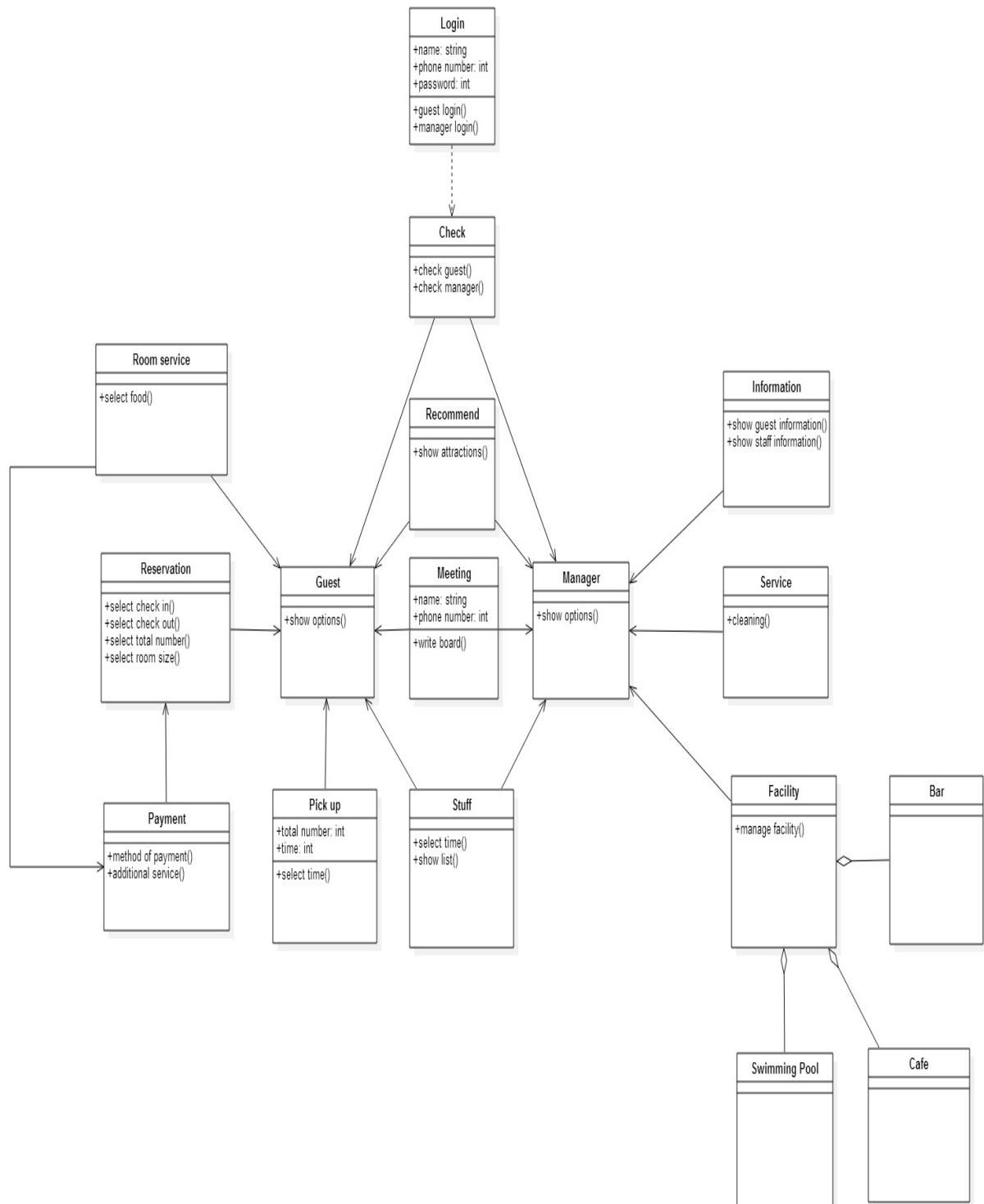| Function	Facility management
Description	User will utilize bar, café and pool through this system. Manager will check the states of bar, café and pool. For example, It shows whether the bar is full
Inputs	Manager's ID or User's ID
Source	Current state of bar, café and pool.
Outputs	It will inform the available facility information to user. It will inform the state of bar, café and pool.
Action	(1) If user entered this system, It will check the facility's available information. (2) If manager entered this system, It will check the facility's state. If some facility is full, inform the state to manager.
Pre-condition	User should reserve hotel room. Manager should log in hotel system.
Post-condition	After manager checks the information, manager should update the information.
Side effects	None

3.2.1 Non-Functional requirement

- Time limit(output within 3 seconds)

- Every information must be encrypted.

- Development environment is based on java and JDBC.

- Developer must not expose the information of the company.

- Our program takes 3 hours to learn, and to use fluently it takes 2 days

- All these functions operate well than satisfaction will be good.

- The possible number of concurrent access is minimum 25 *140, up to 25 *140*5
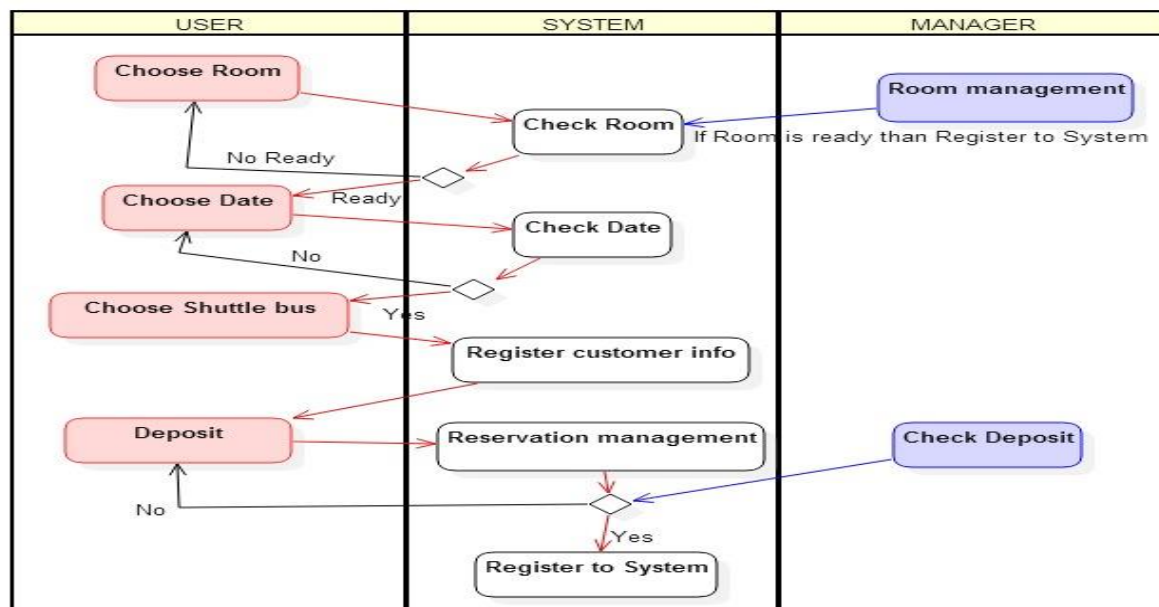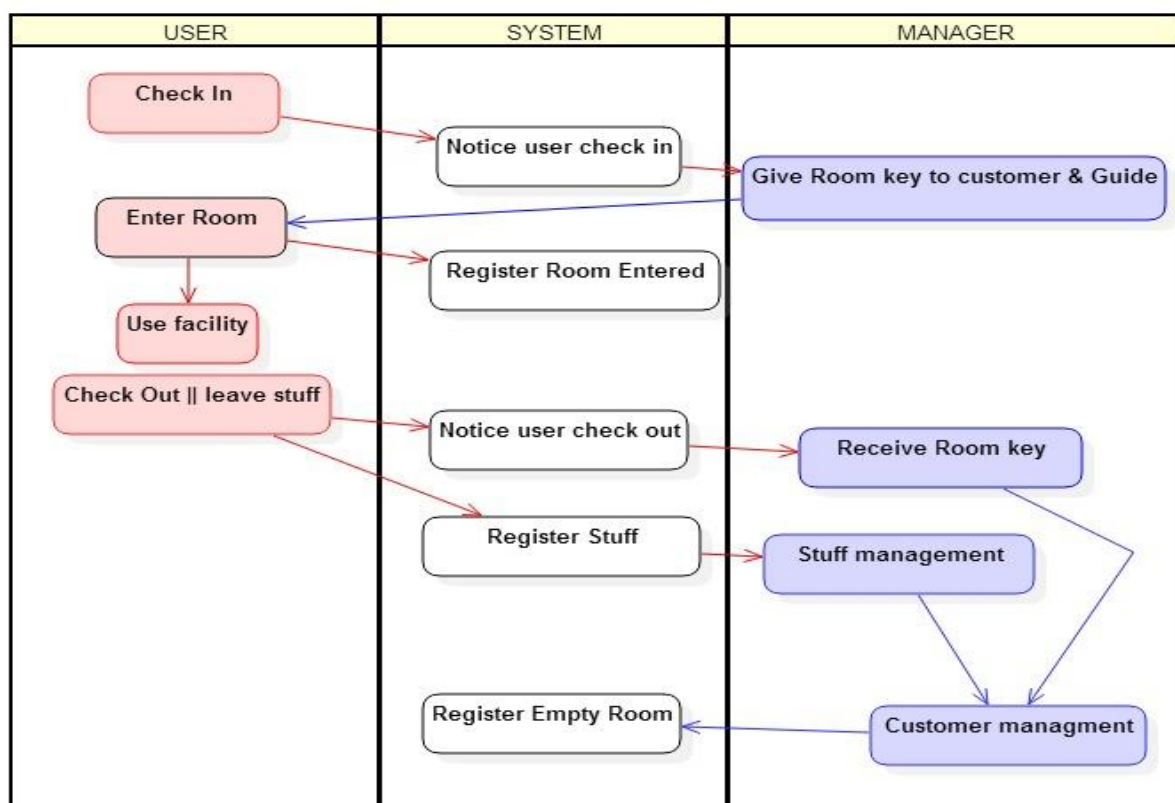
4. Use case diagram

4. Class diagram

5. Activity diagram

1) Reservation

2) Check In & Out

3) Identical Function