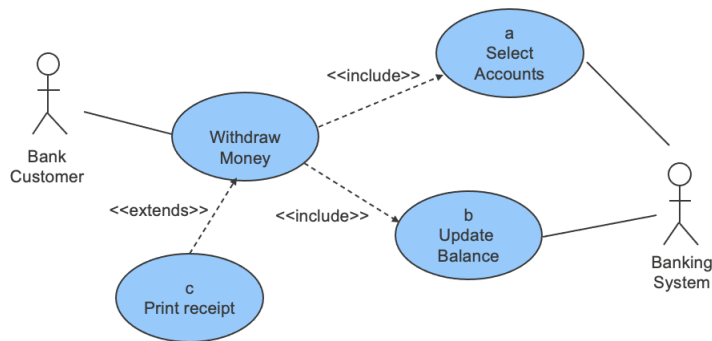# FIT2001: Systems Development –Workshop 6
Student Support Material

Activity 1: Review Quiz

Withdraw Money function:

In the following diagram:
a, b and c are always called
a and b are always called, and c may be called
a may be called, but b and c are always called
a, b and c may be called if needed

Answer: Include use cases (a and b) are always called. They are essential for the 'Withdraw money' function. They are separated from the 'Withdraw money' Use Case because they may be used by other functions, and it allows for easy reuse.

C – Print Receipt extends 'Withdraw money' – this means that it may be called, possibly if the customer requests a receipt to be printed, if they do not, then the function would not be called.

Activity 2: Assignment 1 Retrospective (20 mins)

- If you did not get a chance to do your Assignment 1 retrospective and Assignment 2 planning, please do make an effort to do it. If you do it seriously, it will make a HUGE difference to your success in Assignment 2.

## Activity 3 – Use Case Diagram & Use Case Description

- Task 3.1: Create the Use Case diagram for the 'Manage Rental' function in Bayside Bikes.
- After discussing the requirements with the user, your understanding of the 'Manage Rental' function is as follows:

We would really like the system to notify our customers via SMS a short time before they pickup and drop off their bike(s) and accessories. When the customer comes in and tells us their booking number, we retrieve their booking and verify their id. Before finalising the rental and accept their payment, we always offer insurance to our customers. We then give them the bikes and accessories they have.

When the customers return the bikes, we check for damage, and update the rental accordingly. We also keep a record of the damage as it may affect bike availability for another booking.

A3.1 Possible solution:

Use Case diagram for the 'Manage Rental' function:
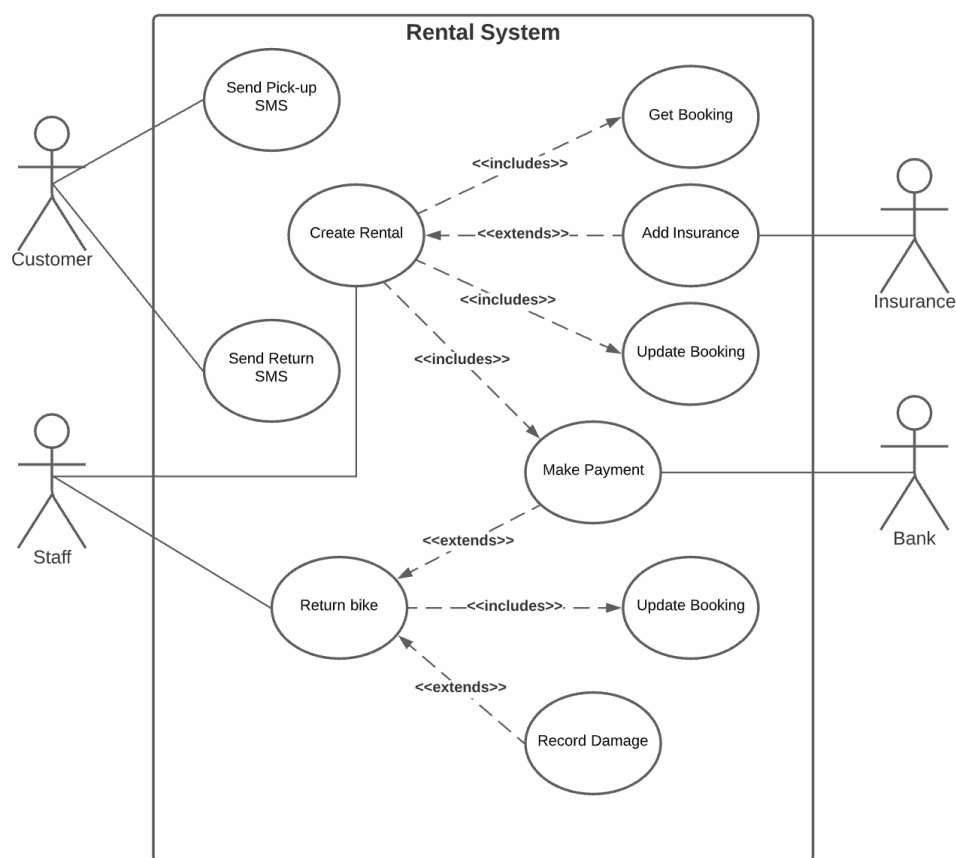
- Task 3.2: Create the Use Case Description for the 'Create Rental' Use Case

**A3.2 Possible solution:**

Use Case Description for the "Create Rental" Use Case

Name	Create Rental
Summary	Customer comes in to the store, to collect bikes and accessories that have been booked online previously
Priority	1
Preconditions	Customers have a confirmed customer booking
Postconditions	Rental created, payment recorded
Primary Actor(s)	Staff member
Secondary Actor(s)	Insurance Company, Bank
Trigger	Customer comes in to pick up bikes they have booked online

Main Scenario	1. Customer provides booking number or name
	2. Search for booking
	3. Check Id - get a copy
	4. If insurance is required
	    4.1 Get insurance
	5. Get requested bikes and accessories
	6. Request payment
	7. Get payment
	    7.1 If cash payment, collect cash
	    7.2 If credit card payment, validate payment
	8. Update booking with ID, insurance, bike and accessory IDs, and payment information

Extension	2a. Booking not found 3a. ID not available, booking cannot be finalised 5a. Bike(s) not available, booking has to be modified or cancelled 5b. Accessories not available, booking has to be modified or cancelled 7.1a Payment cannot be made - cash or credit card not available, booking has to be modified or cancelled 7.1b Payment cannot be made - Credit card rejected, booking has to be modified or cancelled
Open Issues	Confirm what other options are available if bikes and accessories are not available due to damages, late returns, inventory data not accurate.

Activity 4 – Activity Diagram

- Task: Prepare the Activity diagram to meet the business requirements for the 'Booking Request' function. *Note that the system should always check the bikes and accessories again prior to creating the booking. If the bikes and accessories are not available, then the system will ask if the customer wants to place on waitlist.*

A4 Possible Solution:
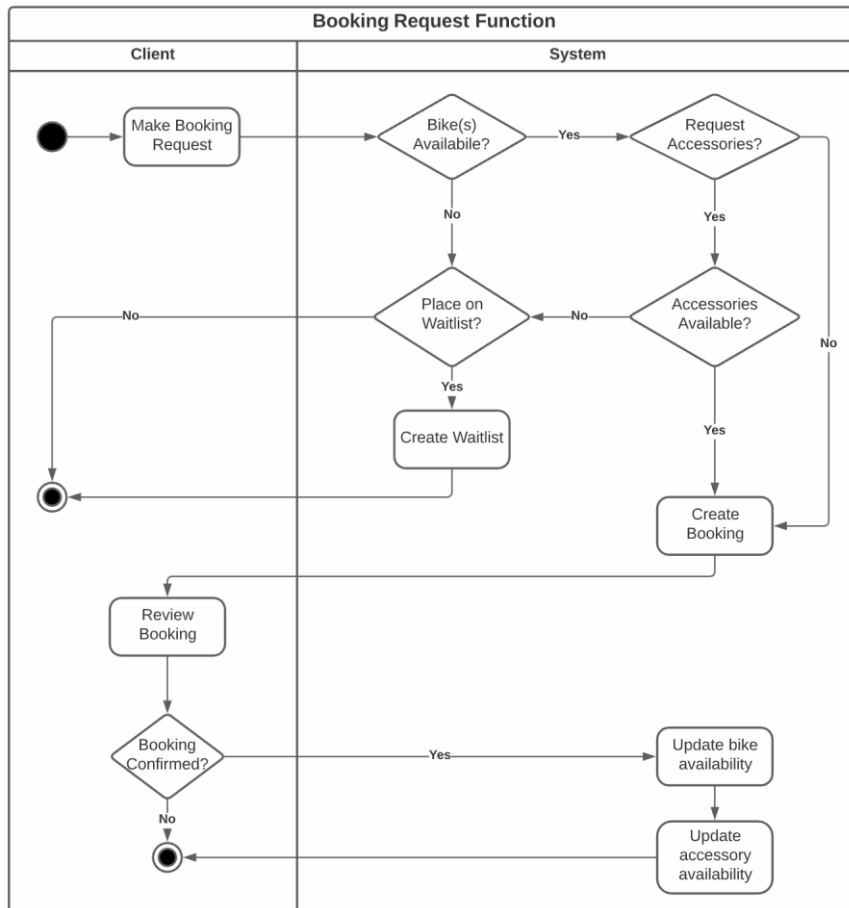
Activity 5: Assignment 2 Planning (~20 minutes)

- If you did not get a chance to do your Assignment 2 planning, please do make an effort to do it. If you do it seriously, it will make a HUGE difference to your success in Assignment 2.