Activity 04: Identify Use Cases

Identify the use cases for the following scenarios.

1. Case Study-1: Waiters on Call Meal-Delivery System

Waiters on Call is a restaurant meal-delivery service started in 2008 by Sue and Tom Bickford. The Bickfords worked for restaurants while in college and always dreamed of opening their own restaurant. Unfortunately, the initial investment was always out of reach. The Bickfords noticed that many restaurants offer takeout food and that some restaurants—primarily pizzerias—offer home-delivery service. However, many people they met seemed to want home delivery with a wider food selection.

Sue and Tom conceived Waiters on Call as the best of both worlds: a restaurant service without the high initial investment. They contracted with a variety of well-known restaurants in town to accept orders from customers and to deliver the complete meals. After preparing the meal to order, the restaurant charges Waiters on Call a wholesale price, and the customer pays retail plus a service charge and tip. Waiters on Call started modestly, with only two restaurants and one delivery driver working the dinner shift. Business rapidly expanded, and the Bickfords realised they needed a custom computer system to support their operations. They hired a consultant, Sam Wells, to help them define what sort of system they needed.

"What sort of events happen when you are running your business that make you want to reach for a computer?" asked Sam. "Tell me about what usually goes on."

"Well," answered Sue, "when a customer calls in wanting to order, I need to record it and get the information to the right restaurant. I need to know which driver to ask to pick up the order, so I need drivers to call in and tell me when they are free. Perhaps this could be included as a smartphone or iPad app. Sometimes, customers call back wanting to change their orders, so I need to get my hands on the original order and notify the restaurant to make the change."

"Okay, how do you handle the money?" queried Sam.

Tom jumped in. "The drivers get a copy of the bill directly from the restaurant when they pick up the meal. The bill should agree with our calculations. The drivers collect that amount plus a service charge. When drivers report in at closing, we add up the money they have and compare it with the records we have. After all drivers report in, we need to create a deposit slip for the bank for the day's total receipts. At the end of each week, we calculate what we owe each restaurant at the agreed-to wholesale price and send each a statement and check."

"What other information do you need to get from the system?" continued Sam.

"It would be great to have some information at the end of each week about orders by restaurant and orders by area of town—things like that," Sue said. "That would help us decide about advertising and contracts with restaurants. Then, we need monthly statements for our accountant."

Sam made some notes and sketched some diagrams as Sue and Tom talked. Then, after spending some time thinking about it, he summarised the situation for Waiters on Call. "It sounds to me like you need a system to use whenever these events occur:

- A customer calls in to place an order, so you need to Record an order.
- A driver is finished with a delivery, so you need to Record delivery completion.
- A customer calls back to change an order, so you need to Update an order.
- A driver reports for work, so you need to Sign in the driver.
- A driver submits the day's receipts, so you need to Reconcile driver receipts.

"Then, you need the system to produce information at specific points in time—for example, when it is time to:

- Produce an end-of-day deposit slip.
- Produce end-of-week restaurant payments.
- Produce weekly sales reports.
- Produce monthly financial reports.

"Am I on the right track?"

Sue and Tom quickly agreed that Sam was talking about the system in a way they could understand. They were confident that they had found the right consultant for the job.

	Use cases
1	Add new customer
2	Update customer details
3	Add new order
4	Update an order
5	Record delivery completion
6	Add new driver
7	Sign-in driver
8	Balance driver receipts
9	Produce daily deposit
10	Produce weekly restaurant payment
11	Produce weekly sales report
12	Produce monthly financial report

2. Case Study-2: Patient Record and Scheduling System

A patient record and scheduling system in a doctor's office is used by the receptionists, nurses, and doctors. The receptionists use the system to enter new patient information when first-time patients visit the doctor. They also schedule all appointments. The nurses use the system to keep track of the results of each visit including diagnosis and medications. For each visit, free form text fields are used to capture information on diagnosis and treatment. Multiple medications may be prescribed during each visit. The nurses can also access the information to print out a history of patient visits. The doctors primarily use the system to view patient history. The doctors may enter some patient treatment information and prescriptions occasionally, but most frequently they let the nurses enter this information. Each patient is assigned to a family. The head of family is responsible for the person with the primary medical coverage. Information about doctors is maintained since a family has a primary care physician, but different doctors may be the ones seeing the patient during the visit.

	Use cases
1	Add new patient
2	Schedule appointment
3	Record patient diagnosis and treatment
4	Record patient prescriptions
5	View patient medical history
6	Print patient medical history

3. Case Study-3: Pergola Man

The Pergola Man operates in the northern suburbs of Perth, building pergolas and gazebos for private customers. When a customer approaches him, he visits their house, takes measurements and then discusses possible pergolas or gazebos which might interest the customer.   As a result of this discussion, the Pergola Man sends the customer a detailed quotation. The customer may or may not accept the quotation. In due course, after completion of the work, the customer is sent an invoice for the work done. The Pergola Man allows part-payments over six months in order to encourage more business.

The Pergola Man is considering creating a website as a means of attracting new customers. He anticipates the website will allow customers to browse examples of his work, browse company details including likely prices and timescales, email him with a request for a visit and permit (part-) payment of invoices. He expects the new website will be available 24/7, easy to use, secured using a 512 bit public key cryptosystem and will contribute to more business, easier debt collection through the convenience of the Internet for his customers.

Use cases	
1	View company details
2	Browse company projects
3	View project details (e.g., price & lead time)
4	Make general enquiry
5	Request visit
6	Accept quote
7	Pay invoice in full
8	Pay invoice in instalments
9	Add new customer
10	Schedule visit
11	Send quote
12	Send invoice