2810ICT/7810ICT Software Technologies, Trimester 2, 2022

Workshop 4 – Software Development

When	Week 4
Goal	In this workshop you will create a UML class diagram for an online order service based on a text description
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1. Preparation

Before your lab class:

- Read all of this document.
- Review the lecture notes for week 4.

2. Workshop activities

1) You have been asked to help design a new online shopping system. Produce a UML Class diagram from the below system description. Some hints are provided via the bold text.

A **Customer** has unique id and is linked to exactly one account. An **Account** owns a **Shopping Cart** and **Orders**. A **Customer** could register as a web user to be able to buy items online, however a **Customer** is not required to be a web user because purchases could also be made by phone or by ordering from catalogues. A **Web user** has login name which also serves as unique id. A **Web user** could be in several states - new, active, temporary blocked, or banned, and could be linked to a shopping cart. Remember a **Shopping cart** belongs to an **Account**.

A customer **Account** has **Orders**. An Account may have no **orders**. Customer **orders** are sorted and unique. Each **order** could refer to several **payments**, possibly none. Every **Payment** has unique id and is related to exactly one account. Each **Order** should store the dates it was ordered and shipped, the shipping address and an order status, as well as a total order value.

Both **Orders** and **shopping cart** have **LineItems** linked to a specific product. Each **LineItem** has a quantity and a price. Each **LineItem** is related to exactly one **Product**. A **Product** could be associated to many **LineItems** or no item at all. A **Product** should have a unique ID, a name and a supplier.