

INFO90002 Week 2 Tutorial

Objectives:

- Conduct a Verb Noun Analysis (10 min)
- Review a case study (15 min)
 - identify entities and attributes
 - identify the participation & cardinality between entities
- Draw a Conceptual model of the case study (10 min)
- Set up & install your MySQL account on the Engineering IT server (10)

Section 1. Verb/Noun Analysis

An investment bank has a number of **branches**. Within each branch a number of **departments** operate and are structured in a hierarchical manner. The bank employs around 3000 **staff** who are assigned to work in the various departments across the branches. There are essentially three types of special employees where extra details required by the system. There are **dealers** who carry out investments who have limits imposed upon them for how much they can spend. There are **IT compliance managers** who's Basel2 role is required to be stored and there are **HR managers** that need have their assessment number recorded (along with other details not specified here).

1.1 Identify the nouns and verbs in the Investment Bank text.

Section 2. Case Study - The Department Store

Case Study: The Department Store

This database is the central component of an information system used to manage a department store that specialises in camping and hiking equipment. The store has several **departments**. For each department we must record its **name** and **unique department id**, **phone number**, and which **floor** it is on. Each department has several **employees** working for it. Each department has a manager. A manager can manage one or more departments.

About each employee we record their **first name**, **last name**, a **unique employee id**, their **annual salary**, which **department** they work for and which **other employee** is their boss. The General Manager of the Department Store has no boss.

The **items** that the store sells each have a **name** and **id**, a **type**, a **colour** and the **retail price**. Whenever a department sells items to customers we record which item was sold, how many were sold, which department sold it. Each **sale** may contain one or more **items**. Each sale is unique to each **department** within the store.

Items are delivered to the store by suppliers. Each **delivery** from a **supplier** contains one or more items delivered to one or more **departments** within the department store, and the **wholesale price** of each item. For each **supplier** we record a **unique supplier id**, **name** and **contact phone number**.

- 2.1. Reading the case study, identify what entities need to be tracked?
- 2.2. What information will be recorded about each entity?
- 2.3. What are the participation relationships between the entities?
- 2.4. What are the cardinalities of the relationships?
- 2.5 Draw a conceptual model of the Department Store entities

Section 3. MySQL Setup

- 3.1. Login to your lab computer
- 3.2 Start MySQL Workbench.

*Hint: To assist with the MySQL Workbench set up please use the **MySQL Workbench Guide** in the Labs folder of LMS*

- 3.3. Click the + Symbol next to the “My SQL Connections”
- 3.4. Enter a connection name, hostname, username (student username) and password. Your password will be provided by your tutor.
- 3.5. In the bottom right of the window select ‘Test Connection’ if successful click ‘OK’
- 3.6 Change your password

To change your password, after logging in, enter the command:

```
SET PASSWORD = 'newpasswordhere';
```

Now press the leftmost lightning button on the toolbar to run the query. Also remember that your password is case sensitive.

- 3.7. Download and run the setup script, as directed by your Tutor.

Appendix A Password Resets

Tutors are able to reset your password (New in 2019!)