

Hi everyone

Please sit together in your group
(but one person per computer if possible)

Please boot on:
“Windows 7 AL Expert System”

* These slides are available in the blackboard !

Lab 1: today (Feb. 11th)

Lab 2: March 4th

Each lab = using 3 tools

- discover the tools (individually)
- choose one and write one report/group /lab
(short: 4 pages max.)

Deadlines:

- report of lab 1: 15 March
- report of lab 2: 29 March

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questions (lab only!): csrwatrigant@comp.polyu.edu.hk

One representative from your group
should submit the group reports on
Blackboard

(don't forget to mention the names of everyone
in the group!)

The report should explain the results
of the exercise using screenshots,
pictures and tables where appropriate

Tools:

1) Demo Expert System for A&L Outfitters

- tutorial provided in the software

!! needs windows XP !!

6:30 -> 8:00

2) Web-based Expert System using eXpertise2Go

- tutorial = following the indications of the tool

8:00 -> 8:30

3) Applied Decision Analysis using DPL

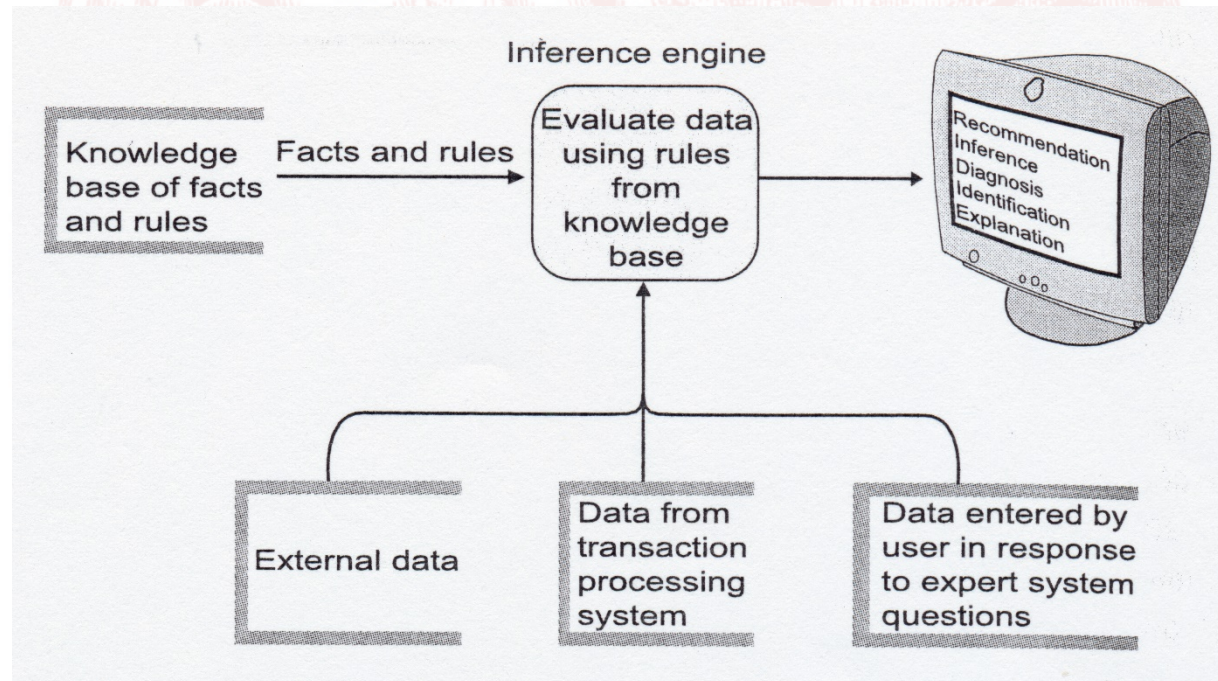
- tutorial = chapter 2 of the manual
(see blackboard)

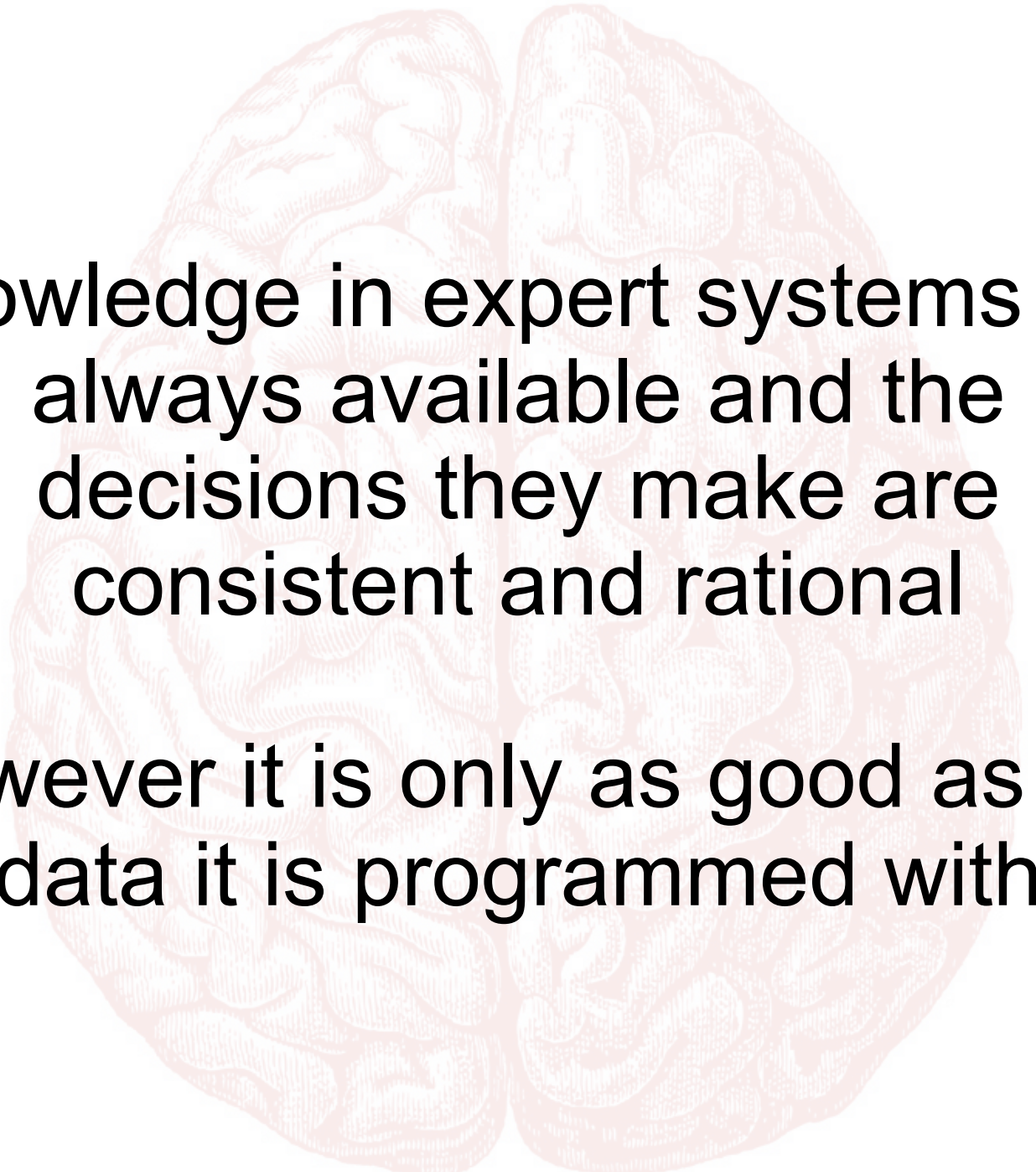
8:30 -> 9:30



1)
What is an expert system?

It is a type of Artificial Intelligence (AI) that makes decisions by using rules and facts





Knowledge in expert systems are
always available and the
decisions they make are
consistent and rational

However it is only as good as the
data it is programmed with

1) A&L outfitters Expert System

Bad news 1: it only works on windows XP ☹️

To do so: you have to boot on
"Windows 7 AL Expert System"

And then run

"D:\vm\wxp_lab\start_D_WXP_LAB.cmd"
To run a virtual Windows XP system

Bad news 2: you cannot save anything neither on the Windows XP
image nor in this Windows 7 system

⇒ However you will have to take some screenshots

⇒ One solution: save it by usb disk (or send to yourself by email... etc.)

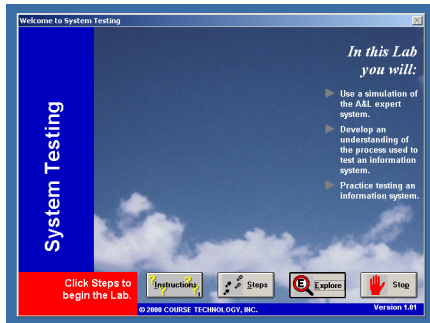
Bad news 3: it is available only in PQ606 (here) until end of March
(or on you computer if you can run windows XP: just copy the files)

run SYSTEST.EXE



Task 1: Click “Steps” and finish the tutorial

if the tutorial window hides the software, then run “SYSTUTOR.EXE” first, and then “SYSTEST.EXE and click “explore”



On the report: check the 7 rules
(one example per rule is enough)
Answer: there are two mistakes !

Hints:

- **mistake 1:** page 42 of the tutorial, when placing an order for item “3003 Tent 4Psn”
(read carefully the picking ticket)
you will also encounter this mistake (and get the answer) at page 59
- **mistake 2:** rule 6 is not respected
(try to put 2 items (any item) in stock in Telluride, 5 in stock in Guatemala, and make an order to Katmandu)

2) Web-based Expert System

- You can now reboot to the classical
"Windows 7"

Or stay in this Windows 7, but:

Reminder:

Be carefull: you cannot save anything on the partition
"Windows 7 AL Expert System"

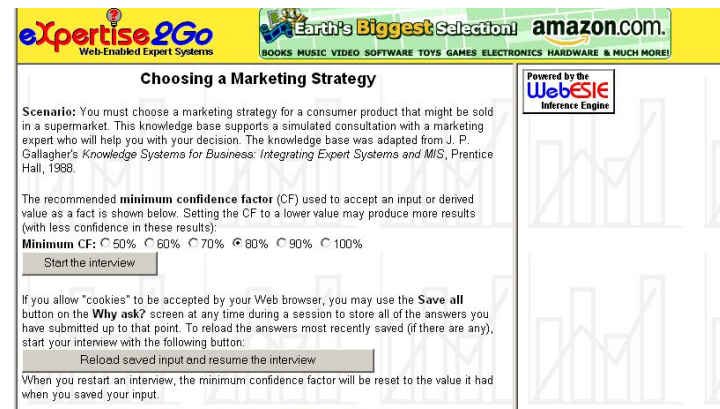
2) Web-based Expert System



Go to

<http://www.expertise2go.com/webesie/loan/>

and experiment with the choices



Go to

<http://www.expertise2go.com/webesie/promote/>

and experiment with the choices

Or go to [Home: Demos & Tutorials] and choose another example on the left "Server-Based Demonstrations"

2) Web-based Expert System

The screenshot shows the eXpertise2Go web interface. The header includes the eXpertise2Go logo, a banner for 'Earth's Biggest Selection!' with 'amazon.com.' and a list of product categories: BOOKS, MUSIC, VIDEO, SOFTWARE, TOYS, GAMES, ELECTRONICS, HARDWARE & MUCH MORE!. The main content area is titled 'Implementing a loan decision policy'. It contains a 'Scenario' paragraph, a paragraph about the 'minimum confidence factor (CF)', a 'Minimum CF' section with radio buttons for 50%, 60%, 70%, 80% (selected), 90%, and 100%, and a 'Start the interview' button. Below this is a 'Save all' button and a 'Reload saved input and resume the interview' button. A footer link reads 'Home Demos & Tutorials | Tutorial Using eXpertise2Go's Knowledge Bases'. On the right, a sidebar titled 'eXpertRef for the Loan Decision Knowledge Base' contains a 'Cyberland Bank Loan Policy Manual' and two sections: '1.0 Loan types' and '2.0 Criteria for determining loan category'.

The screenshot shows the eXpertise2Go web interface. The header is identical to the first screenshot. The main content area is titled 'Choosing a Marketing Strategy'. It contains a 'Scenario' paragraph, a paragraph about the 'minimum confidence factor (CF)', a 'Minimum CF' section with radio buttons for 50%, 60%, 70%, 80% (selected), 90%, and 100%, and a 'Start the interview' button. Below this is a 'Save all' button and a 'Reload saved input and resume the interview' button. A footer link reads 'Home Demos & Tutorials | Tutorial Using eXpertise2Go's Knowledge Bases'. On the right, a sidebar titled 'Powered by the WebESIE Inference Engine' is visible.

In the report:

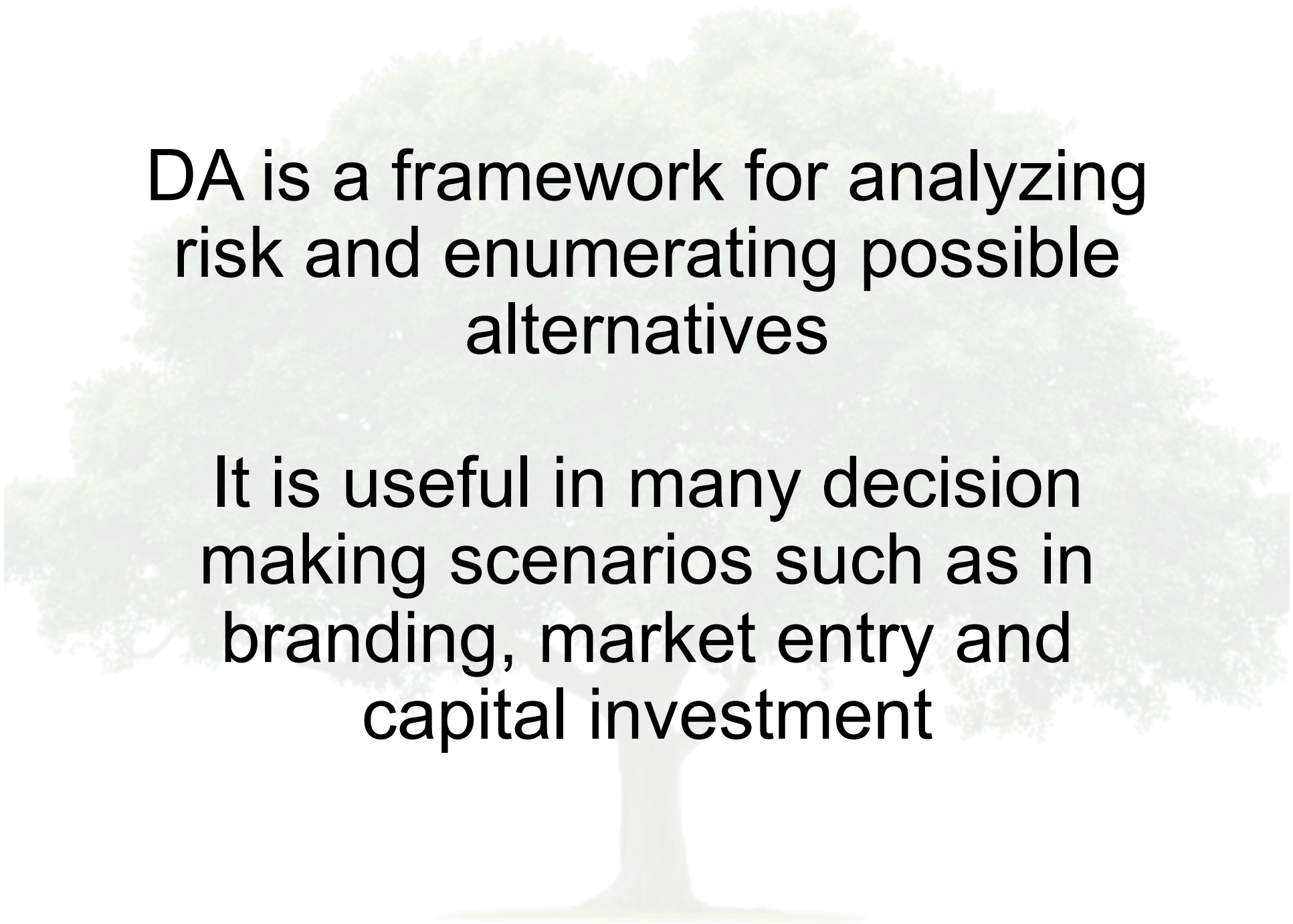
Choose one system, and perform several scenarios. Explain the decisions of the system (example: one scenario per student in the group)

Remark: this system is not supposed to contain mistakes...!



3) Decision analysis using DPL

What is decision analysis (DA)?

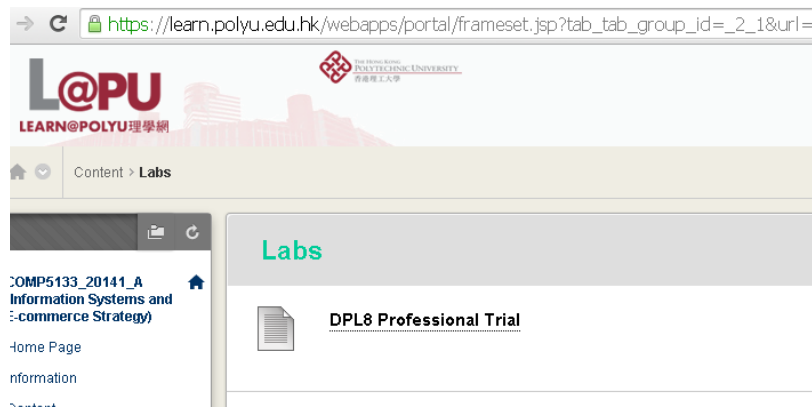


DA is a framework for analyzing
risk and enumerating possible
alternatives

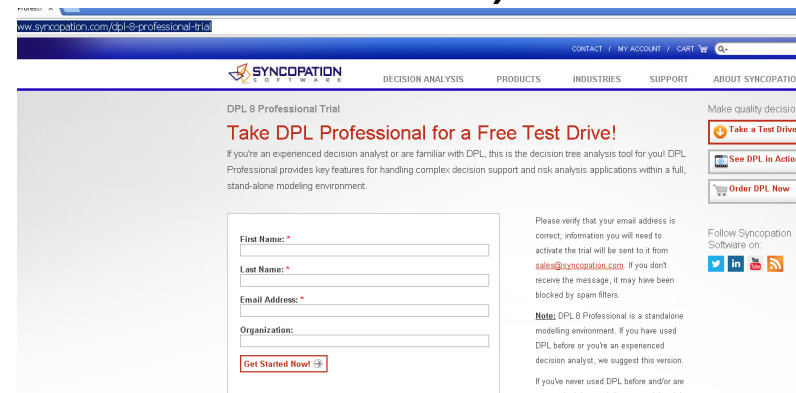
It is useful in many decision
making scenarios such as in
branding, market entry and
capital investment

To install & run DPL...

Download it from
Blackboard
DPL8Trial.msi



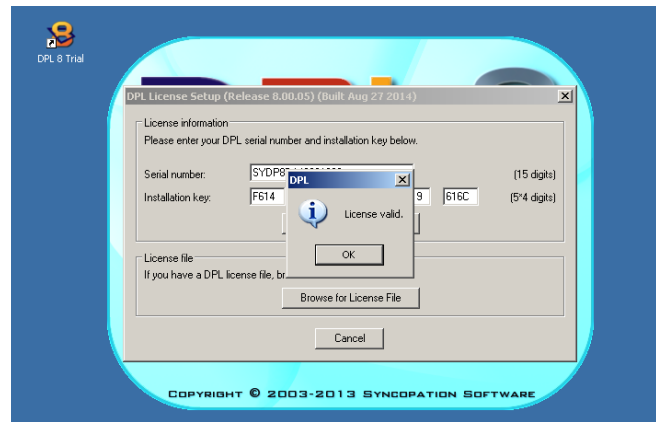
or register at
[http://
www.syncopation.com/
dpl-8-professional-trial](http://www.syncopation.com/dpl-8-professional-trial)
**(Professional, not
Direct)**



Enter the following license information

Serial Number: SYDP8D140301341

Installation key:
8966-E001-9219-A915-B8CB



or use your own if it doesn't work

A simple example using DPL:

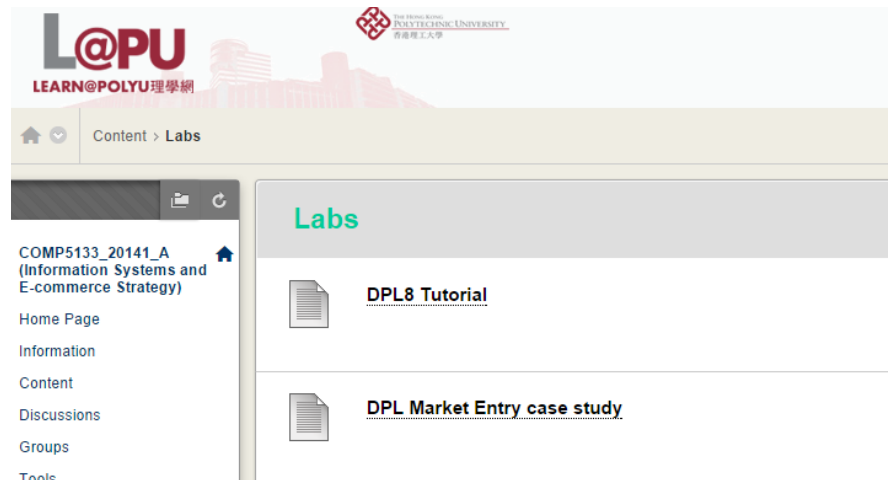
<https://www.youtube.com/watch?v=MMHQ2gUMoNA>



Syncopation Video:

A Simple Decision Tree Example

Individually: go through the provided tutorial (Chap. 2)
sections 2.1, 2.2, 2.3, 2.4



In the report, choose between:

- Read the provided case study (see blackboard) and explain how DA was used
- Invent another scenario, of the same flavor as the umbrella case, but more involved if possible (you can be creative !!)