

# Documenting Business Rules

# Learning Objectives

- Understand the role of business rules in software systems
- Apply UML activity diagrams to document business rules.

# Definition

"A business rule is a statement that defines or constrains some aspect of the business. It is intended to assert business structure or to control or influence the behavior of the business."

Recall: "business" also means organization, group, customer ... so the "funder" of the information system.

- Facts ('no GST on food')
- Constraints ('only 30 books checked out')
- Inferences ('if X holds, Y also holds')
- Computations ('all sales over 50\$ pay shipping of 10% of the total')
- Action Enablers ('if X holds, then do Y')

## **Vs. Business Requirements and Goals**

- Business Goals are objectives the business wants to achieve with the software system.
- Business Processes are the activities involved in carrying out business activities, that may be influenced by business rules.
- Often both of these are not well documented, even as they are vital to the company.

# Examples

- name an example of a business rule for BC Ferries.

APP STORE



TORNADO GUARD  
FROM DROID COPER 2187

PLAYS A LOUD ALERT SOUND  
WHEN THERE IS A TORNADO  
WARNING FOR YOUR AREA.

RATING: ★★★★★  
BASED ON 4 REVIEWS

USER REVIEWS:



★★★★★ GOOD UI!  
MANY ALERT CHOICES.



★★★★★ RUNNING  
GREAT, NO CRASHES



★★★★★ I LIKE HOW YOU  
CAN SET MULTIPLE LOCATIONS



☆☆☆☆☆ APP DID NOT  
WARN ME ABOUT TORNADO.

THE PROBLEM WITH  
AVERAGING STAR RATINGS

# Writing Business Rules

- Keep them atomic (no disjunctions or conjunctions (table 9.3))
- Store business rules in a catalog.
- Uncover them:
  - Sometimes they appeared as stored procedures in a db.
  - Reverse engineer from logic in the software.
  - Government regulation.
  - Business process modeling, such as with activity diagrams.

# Activity Diagrams

A visual representation of a business process or rule.

Not all business processes (in fact, maybe even "few") are captured explicitly.

- this leads to catch-22 situations where one department might expect Form F-56 to be signed, while the other department won't sign it until you get the other form first.
- compare to Value Stream Mapping (later in the course)  
See Fig 8-4, and [Scott Ambler's page](#).



## Exercise

Draw an activity diagram on the whiteboard representing your team's app.