

Object Analysis

Part I

K. Rush, 9/18/17

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Virtual Objects

“Information systems are composed of **virtual objects** that embody the same concepts as real objects, but *they are created from concepts.*”

-- Ashrafi & Ashrafi

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Virtual Classes

- For virtual object, class is both an abstraction and a template. Thing we cannot touch and feel.
- We will focus on these type of classes:
 - Business class
 - Utility class
 - Boundary class

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Business Classes

- Conceptually, they represent “real world” objects.
 - Submit Assignment (use case)
 - Assignment is a business object.
 - Create a new vendor (use case)
 - Vendor is a business object.

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Utility Classes

- They do not have direct counterpart in the “real world.” objects.
- They used to interact with the outside world (e.g. actors of our system)
- They are “helper” objects.
- Examples: buttons, menus, dropdown list, view controller.

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Boundary Objects

- They are outside of our systems.
- Objects that interact with our system from the outside of our system.
- Example: “The iProc system allows a **buyer** to create a new **vendor**. After the vendor is created, the iProc system sends a notification to the associated **vendor**.”
- **Buyer** and **vendor** represent **boundary objects**.
- **Vendor** is also a **business object**.

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Object Identification

From the format of our complete functional requirement statements, we can easily identify boundary and business objects.

“FN#1. The iProc system must allow authorized **buyers** to create a new **item** in the item master. Each item contains a unique item number, description, minimum order quantity, purchase price, effective date, and preferred **vendor**.”

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Object Analysis Activity

“FN1. The iProc system must allow authorized **buyers** to create a new **item** in the item master. Each item contains a unique item number, description, minimum order quantity, purchase price, effective date, and preferred **vendor**.”

Req. No	Boundary Object	Use Case Name	Business Object(s) and Attributes
FN1	Buyers	Create new item	Item Attributes includes the following: Unique item number, description, minimum order quantity, purchase price, effective date, and preferred vendor.

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Object Analysis – Part I

See “Object Analysis Part I” document
(Blackboard, under In-Class Activities folder)