Tutorial-2

The tutorial shows Scenarios and Diagrams covering Use cases and Relations between Use Cases. The two relations are: “ the relation (<<include>> or<<uses>>) and the relation (<<extends>>) “ .

Use case Scenarios and Use case Diagrams

**Tutorial-2 : Use Case Scenarios and Diagrams**

**Scenario-1**

Registering a course at the College of Computer and Information Sciences (CCIS) for the undergraduate level, involves both the Registrar and the student. The student submits to the Registrar’s office, the student Id and a desired Section number for a certain Course. The Registrar prints a final schedule to the student.

1. Enumerate and list the Use Cases.

The two USE CASES in this Scenario are :

1. REGISTER COURSE.
2. PRINT SCHEDULE.
3. Enumerate and list the Actors.

The two ACTORS in this Scenario are :

1. STUDENT.
2. REGISTRAR.
3. Draw a Use case Diagram.

The two ACTORS involved in REGISTERING COURSES are both the STUDENT and the REGISTRAR, meanwhile the REGISTRAR is involved in PRINTING SCHEDULE .

See Figure-1 “USE CASE DIAGRAM for Scenario-1”, below.



**Scenario-2**

A private University Registration system requires students and the Registrar to carry on the regular Class Registration procedure. In certain cases, like Registration for a special class, the student has to get the Instructor’s approval, or when registering for a course that the student has not completed its prerequisites, he (the student) has to get the Dept. Chairman’s approval. The Registrar prints a final schedule to the student. To pay for his tuition fees, tuition invoices are mailed to the student from the Billing Dept. of the University (Bursar’s office).

1. Enumerate and list the Use Cases.

The five USE CASES in this Scenario are :

1. REGISTER REGULAR COURSE.
2. REGISTER SPECIAL CLASS.
3. REGISTER WITHOUT PREREQUISITES.
4. PRINT SCHEDULE.
5. BILL STUDENT.
6. Enumerate and list the Actors.

The two ACTORS in this Scenario are :

1. STUDENT. b) REGISTRAR. c) INSTRUCTOR.

d) DEPT. CHAIRMAN. e) BILLING DEPT. (BURSAR’s OFFICE).

1. Enumerate and list the relations between Use-cases.

a)<<extends> between the two use cases:

REGISTER REGULAR COURSE, and

REGISTER SPECIAL CLASS.

b)<<extends> between the two use cases:

REGISTER SPECIAL CLASS, and

REGISTER WITHOUT PREREQUISITES.

1. Draw a Use case Diagram.

There are five actors and five Use-cases.

See figure-2 “USE CASE DIAGRAM for Scenario-2”, below.



**Scenario-3**

Customers visit a Fast Food Restaurant that has a system that allows them (Customers) to make Food Orders by the help of Service Persons who take the orders. The system allows Applicants as well to apply for jobs and the Manager interviews and hire them. Any time a Manager reorders supplies, he contacts the Supplier after tracking the sales and Inventory data, to monitor deficiencies (shortage) in supplies before ordering. Whenever the manager produces management reports through the system, he does this after tracking the sales and inventory data to make sure that the data included in the report is up to date.

1. Enumerate and list the Use Cases.

The five USE CASES in this Scenario are :

a) ORDER FOOD. b) HIRE EMPLOYEE.

c) REORDER SUPPLIES. d) TRACK SALES AND INVENTORY DATA.

e) PRODUCE MANAGEMENT REPORTS.

1. Enumerate and list the Actors.

The five ACTORS in this Scenario are :

a) CUSTOMER. b) SERVICE PERSON. c) APPLICANT. d) MANAGER. e) SUPPLIER.

1. Enumerate and list the relations between Use-cases.

a)<<include>> or <<uses>> between the two use cases:

REORDER SUPPLIES, and

TRACK SALES AND INVENTORY DATA.

b)<<include>> or <<uses>> between the two use cases:

PRODUCE MANAGEMENT REPORTS, and

TRACK SALES AND INVENTORY DATA.

1. Draw a Use case Diagram.

There are five actors and five Use-cases.

See figure-3 “USE CASE DIAGRAM for Scenario-3”, below.

