## **Graph Editor**

### Write a use case diagram for this Graph Editor

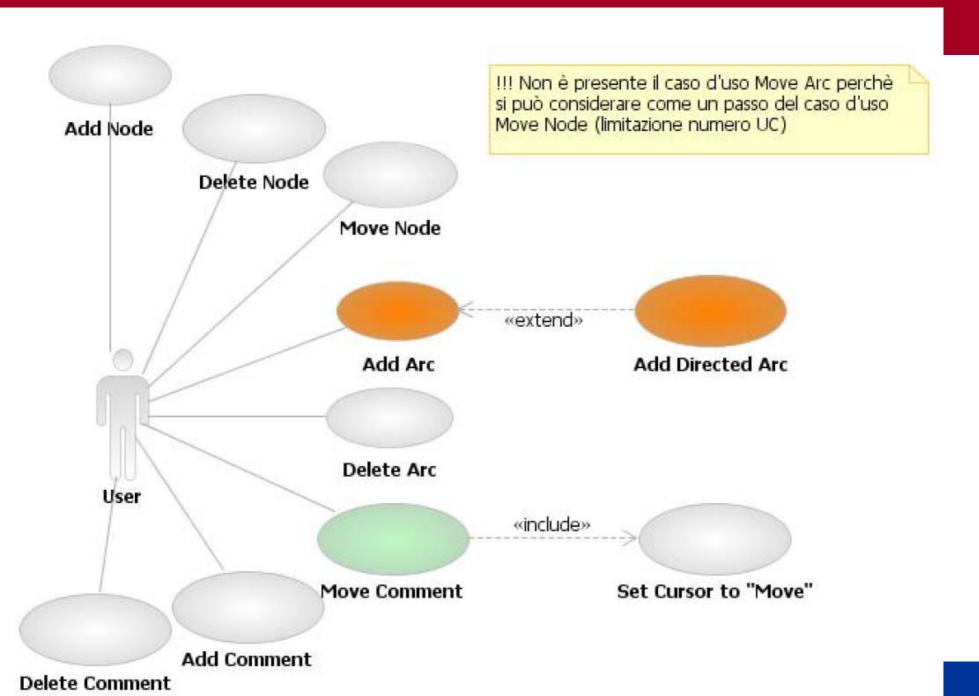
We want to build a graph editor. The graph editor allows users to build graphs composed of nodes, arcs, and comments. Nodes and arcs may have labels. The user can add, move, and delete nodes and arcs to the diagram. When adding an arc, the user must select a point of the starting node and a point of the ending node. Arcs may be directional. When moving a node, the diagram also moves the arcs connected to the node. Comments can be placed anywhere in the diagram; when the user selects the comment tool, the cursor changes to a I-beam shape.



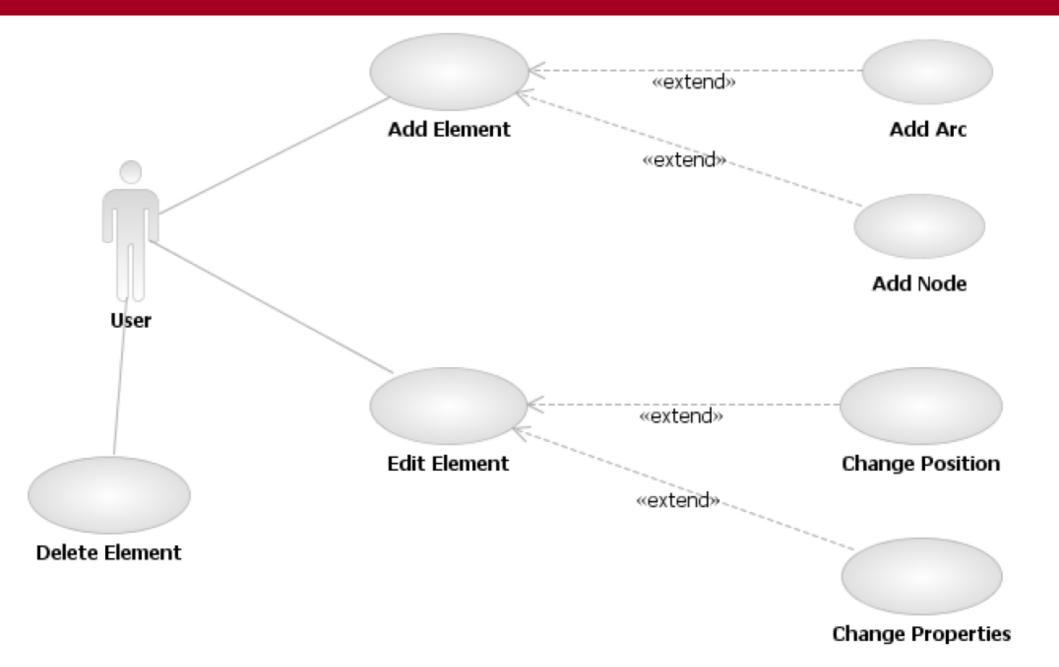
## **Software Engineering**

**Graph Editor: correction (2 solutions!)** 

### First solution



## **Second solution**





# **Software Engineering**

**Describe Use Cases** 

### **Describe Use Cases**

- A flow of events document is created for each use cases
  - Written from an actor point of view
- Details what the system must provide to the actor when the use cases is executed
- Typical contents
  - How the use case starts and ends
  - Normal flow of events
  - Alternate flow of events
  - Exceptional flow of events

### **Describe Use Cases**

# In theory, no particular format for the description of a use case.

In practice, follow a convention.

Title

**Summary** 

**Description** 

**Exceptions** 

**Extension** 

## Describe Use Cases: Example

Title: Buy Ticket

### **Summary:**

This use case describes how tickets can be bought using the reservation system.

### **Description**

Step 1. The User chooses a show and a date. [exception 1]

**Step 2.** The System shows the seats available.

**Step 3.** The user provides name and a credit card number **[extension 1]** 

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### **Exceptions**

[exception 1] If the name of the show and the dates do not correspond, an error message is issue.

. . .

#### **Extension Points**

[extension 1] At step 3, "loyal customers" simply need to enter their PIN.

. . .



# **Software Engineering**

Descrivere gli Use Case semplici del vostro progetto