



Introduction to databases

Triggers - Exercise

Triggers

```
EVENT(ECode, EventName, EventCategory, EventCost, EventDuration)
CALENDAR_OF_EVENTS(ECode, Date, StartHour, Place)
CATEGORY_SUMMARY(EventCategory, Date, TotalNumberOfEvents, TotalCostOfEvents)
```

The trigger application deals with scheduling the events for the 150th anniversary of Italy's unification (Italia 150) in the city of Torino. Each event belongs to a category (attribute `EventCategory`), e.g., exhibition, discussion, or film projection, and is characterized by an implementation cost (attribute `EventCost`). Each event can be repeated more times in different dates. The `CALENDAR_OF_EVENTS` table reports the scheduling of events in various dates and locations in Torino. Write the triggers managing the following activities.

(1) *Update the `CATEGORY_SUMMARY` table.* The `CATEGORY_SUMMARY` table reports, for each event category and for each date, the total number of scheduled events and the total cost to implement them. When a new event is scheduled (a new record is inserted in `CALENDAR_OF_EVENTS`), the modifications on the `CALENDAR_OF_EVENTS` table should be propagated to the `CATEGORY_SUMMARY` table. Write the trigger managing this activity.

Triggers

```
EVENT(ECode, EventName, EventCategory, EventCost, EventDuration)
```

```
CALENDAR_OF_EVENTS(ECode, Date, StartHour, Place)
```

```
CATEGORY_SUMMARY(EventCategory, Date, TotalNumberOfEvents, TotalCostOfEvents)
```

(2) *Integrity constraint on the maximum cost of an event.* The cost of an event belonging to the film projection category (attribute `EventCategory`) cannot exceed 1500 euro. If a cost higher than 1500 is entered in the `EVENT` table, the attribute `EventCost` should be set to 1500. Write the trigger enforcing this integrity constraint.