

```
-- The following trigger checks before the insertion or the update of the Card relation
-- if only one card associated to the customer related to the modification is enable.
```

```
CREATE FUNCTION checkEnableCard() RETURNS TRIGGER AS $$
BEGIN
    IF(NEW.enabled = TRUE) THEN
        -- Check if there is another card enabled with same customer_id
        PERFORM customer_id
            FROM mbt.Card
            WHERE customer_id = NEW.customer_id AND enabled = TRUE;
        IF FOUND THEN
            RAISE EXCEPTION 'Customer % already has an enabled card.', new.customer_id;
        END IF;
        RETURN NEW;
    ELSE
        -- Check if there is another card enabled with same customer_id
        PERFORM customer
            FROM mbt.Card
            WHERE customer_id = NEW.customer_id AND enabled = TRUE;
        IF FOUND THEN RETURN NEW;
        ELSE
            NEW.enabled = TRUE;
            RETURN NEW;
        END IF;
    END IF;
END;
$$ LANGUAGE PLPGSQL;
```

```
CREATE TRIGGER checkCard
    BEFORE INSERT OR UPDATE ON mbt.Card
    FOR EACH ROW
    EXECUTE PROCEDURE checkEnableCard();
```

```
-- This trigger checks if the value of the attribute Type of the relation Subscription is
consistent
-- with the duration type specified, in case of "daily" subscriptions Hours_duration must be
NULL and Days_duration NOT NULL,
-- viceversa in case of "hourly" subscriptions the former must be NOT NULL and the latter
NULL.
```

```
CREATE FUNCTION checkSubTypeDuration() RETURNS TRIGGER AS $$
BEGIN
    IF (NEW.type = 'daily') THEN
        IF (NEW.days_duration IS NOT NULL AND NEW.hours_duration IS NULL) THEN
            RETURN NEW;
        ELSE
            RAISE EXCEPTION 'Subscriptions of type "daily" must have days_duration NOT
            NULL and hours_duration NULL';
        END IF;
    ELSIF (NEW.type = 'hourly') THEN
        IF (NEW.days_duration IS NULL AND NEW.hours_duration IS NOT NULL) THEN
            RETURN NEW;
        ELSE
            RAISE EXCEPTION 'Subscriptions of type "hourly" must have days_duration NULL
            and hours_duration NOT NULL';
        END IF;
    END IF;
END;
$$ LANGUAGE PLPGSQL;
```

```
CREATE TRIGGER checkSubscription
    BEFORE INSERT OR UPDATE ON mbt.Subscription
    FOR EACH ROW
    EXECUTE PROCEDURE checkSubTypeDuration();
```