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Group No V

Active rules

1. Trigger
   Name: On_reservation_insert_update_passenger
   Triggering event: adding new reservation
   The trigger will be fired when we try to insert new reservation into Reservation table. The passenger who tries to reserve a flight will be rewarded and will get extra 10 loyalty points. Additionally, his number of taken flights will be increased by one.

2. Trigger
   Name: Check_flights_dates
   Triggering event: adding new flight
   Condition: arrival date earlier then departure date
   This trigger will be triggered when we try to insert new flight into Flight Table. If arrival date is earlier then the departure date we will print a communicate on the screen and this record will not be inserted into table.

3. Check constraint
   Name: Check_carrier_rating
   Triggering event: inserting or updating carrier rating
   Condition: rating value greater than max_rating_value
   This constraint will be added into Carrier Table and will check whether the values in Carrier rating do not exceed a maximal rating value. The maximal value is one hundred.

4. Triggers with cycle
   Name: On_reservation_insert_update_passenger & On_passenger_insert_update_reservation
   Triggering event: adding new reservation & adding new passenger
   This trigger is a combination of two triggers: On_reservation_insert_update_passenger and On_passenger_insert_update_reservation. The first one is triggered when a new reservation is added. It will insert a new Passenger into Passenger Table.
   The second trigger will be fired when we insert a new Passenger.
   It will insert a new Reservation into Reservation Table. The triggers are triggering each other recursively. The maximal depth of recursion will be reduced to 10 calls.

5. Triggers at the same action
   Name: On-reservation_1 & On_resesrvation_2 & On_reservation_3
   Triggering event: insert into reservation
   This three triggers are set to trigger at the same action. We will check the execution order of this triggers and try to control the sequence of execution. The order of execution will be saved in a Log Table.

Results

Execution time [s]						
Transaction Database state	I	II	III	IV	V	All transactions
Without active rules	0,459	0,464	0,414	0,536	0,478	2,351
With active rules	0,460	0,447	0,483	0,620	0,543	2,553