QUERIES/TRIGGERS/PROCEDURES EXPLANATION

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1) *SELECT FlightNo,DepDate,DepTime,Gate,AirplaneCompany,Status FROM Flight where year(DepDate)= year(SYSDATE()) AND month(DepDate)= month(SYSDATE()) AND day(DepDate)= day(SYSDATE()) AND (Status<>'ARRIVED' AND Status<>'EN ROUTE');*	To display list of files that are scheduled to depart on the current date.
2)*SELECT FlightNo,DepDate,DepTime,Gate,AirplaneCompany,Status FROM Flight where year(DepDate)= year(SYSDATE()) AND month(DepDate)= month(SYSDATE()) AND (Status='ARRIVED' OR Status='EN ROUTE');*	To display list of files that are scheduled to arrive on the current date.
3)*SELECT P.TicketNum,P.FirstName,P.SeatNum,F.FlightNo, F.DepDate,F.DepTime,Gate,F.AirplaneCompany FROM Passenger P JOIN Flight F ON P.FlightNo = F.FlightNo ;*	To display the list of all passenger and their flights details which are departing/ arriving in the airport.
4) *SELECT TicketNum,FlightNo,Class,FirstName,LastName from Passenger where checkin=1;*	To display list of passengers who have completed check-in formality, i.e, obtained a boarding pass and loaded their luggage.
5) *SELECT TicketNum,FlightNo,Class,FirstName,LastName from Passenger where checkin=1 AND immigration=1 ;*	To display list of passengers who have completed check-in formality, as well as immigration [For passengers travelling out of country].
6) *SELECT TicketNum,FlightNo,Class,FirstName,LastName from Passenger where checkin=1 AND security=1 ;*	To display list of passengers who have completed check-in formality, as well security [For passengers travelling out of country or within country]. This query is to check the passengers who are ready to board.

7) $sql="CREATE TRIGGER before_Flight_insert
   BEFORE INSERT
   ON Flight FOR EACH ROW
   BEGIN
   DECLARE errorMessage VARCHAR(255);
   SET errorMessage = CONCAT('The new capacity cannot be greater than 1000 '
         );
 	
   IF (NEW.Capacity >1000 OR (NEW.Status <>'ARRIVED' AND New.Status<> 'DELAYED' AND NEW.Status <>'SCHEDULED' AND New.Status<> 'GATE OPEN' AND NEW.Status <>'BOARDING' AND New.Status<> 'ENROUTE')) THEN
   SIGNAL SQLSTATE '45000'
   SET MESSAGE_TEXT = errorMessage;
   END IF;
   END; ";
	Trigger to prevent wrong insertion into Flight table.
	It prevents the following entries:-
	
	1) Capacity> 1000
	2) Status which is not among [Delayed,Scheduled,Gate Open, Boarding, En route].

8) $sql="CREATE TRIGGER before_Passenger_insert
   BEFORE INSERT
   ON Passenger FOR EACH ROW
   BEGIN
   DECLARE errorMessage VARCHAR(255);
   SET errorMessage = CONCAT('Order of formalities:- CheckIn-> Immigration(if International)-> Security'
         );
 	
   IF (NEW.immigration =1 **AND** NEW.checkin=0) **OR** (NEW.security =1 **AND** NEW.checkIn=0) THEN
   SIGNAL SQLSTATE '45000'
   SET MESSAGE_TEXT = errorMessage;
   END IF;
   END; ";
	Trigger to prevent wrong insertion into Flight table.
	
	Makes sure there is no misleading entries like the immigration or security attribute being set as 1 before check-in.
	
	The ideal order of formalities:-
	
	1)CheckIn
	2)Immigration(if International)
	 3)Security

9) $sql="CREATE TRIGGER IF NOT EXISTS before_Purchase_insert
   BEFORE INSERT
   ON Purchases FOR EACH ROW
   BEGIN
   DECLARE TN int;
 	
   DECLARE errorMessage VARCHAR(255);
   SET errorMessage = CONCAT('Payment Unsuccessful!. Ticket Number not registered.'
   );
   SELECT P.TicketNum into TN FROM Passenger P where P.TicketNum=NEW.TicketNum;
   IF (TN = NULL) THEN
   SIGNAL SQLSTATE '45000'
   SET MESSAGE_TEXT = errorMessage;
 	
   END IF;
   END; ";*
	Trigger to ensure that the passenger corresponding to the Ticket Number entered is scheduled to fly on or near the current date.
	
	A search query is used. If the Ticket Number entered in the form matches with Ticket Number of any passenger in the Passenger table, the ticket number is stored in the variable TN. If no such ticket number has been found, TN is NULL and an error message is displayed since that ticket number is not registered. Helps to keep in check that valid boarding passes are used to scan the details of the passengers while buying a product in a duty-free shop.

10) $sql="UPDATE Flight set DepDate=SYSDATE() where DepDate<> SYSDATE()";	To update the list of flights scheduled everyday. Other attributes of Flight table are updated in accordance with the ticket reservations by customers.

NOTE : OTHER QUERIES ARE BASIC CREATION AND INSERTION OF VALUES IN TABLES.