## **SWE1004 Database Management Systems**

## **AIRLINE Database**

**AIRPORT**(<u>Airport\_code</u>, Name, City, State)

**FLIGHT**(<u>Flight\_number</u>, Airline, Weekdays)

**FLIGHT\_LEG**(<u>Flight\_number,Leg\_number</u>,Scheduled\_departure\_time,Departure\_ airport \_ code,Arrival\_airport\_code,Scheduled\_arrival\_time)

**LEG\_INSTANCE**(Flight\_number,Leg\_number,Date1,Number\_of\_available\_seats,

 $Airplane\_id, Departure\_airport\_code, Departure\_time, Arrival\_airport\_code, Arrival\_time)$ 

**FARE**(<u>Flight\_number</u>, <u>Fare\_code</u>, Amount, Restrictions)

**AIRPLANE\_TYPE**(<u>Airplane\_type\_name</u>,Max\_seats,Company)

CAN\_LAND(<u>Airplane\_type\_name</u>, <u>Airport\_code</u>)

**AIRPLANE**(<u>Airplane\_id</u>,Total\_number\_of\_seats,Airplane\_type)

**SEAT\_RESERVATION**(<u>Flight\_number,Leg\_number,Date,Seat\_number</u>,Customer\_name,Customer\_phone)

## PL/SQL

- 1. Write a PL/SQL block to display the reverse of numbers between 1 and 100.
- 2. Write a PL/SQL block to find the greatest of three numbers.
- 3. Write a PL/SQL block to generate Fibonacci series.
- 4. Write a block to raise an exception if the reservation date is less than today's date.
- 5. Write a cursor to give the details of all the flights.
- 6. Write a cursor to give flight details that range between 1200 and 2900.
- 7. Write a procedure to accept the customer name and display the reservation details.
- 8. Write a procedure (with cursor) to display the company names along with airplane ids.
- 9. Write a function to give the number of flights arriving for a given airport code.
- 10. Write a function to return the airport name which is having highest number of airplane types landing.
- 11. Write a trigger to update the airplane type in airplane when parent table is updated.
- 12. Write a trigger to delete all the foreign key references when the parent primary key is deleted.
- 13. Write a trigger to raise an exception if reservation date is invalid while insertion. (Should be latter than current date.)
- 14. Write a trigger to update the myflight table when flight tuple is inserted.
- 15. Create a nested table from the airplane database. Create a package with two functions on the table.