

**COMP 3005**  
**Assignment #2**  
**Due: February 9**

**Instruction**

1. You should do the assignments independently. Copying is not allowed
2. You should not use Oracle VM for this assignment as it does not support Relational Algebra.
3. Submit your assignment as a single word/PDF document on culearn.

**Queries (80 marks)**

Use both Relational Algebra (ALG) and Tuple Relational Calculus (TRC) to express the following queries based on the given Sailer-Boat database created in Assignment 1. Submit your ALG and TRC query expressions for these queries as well as the final query results. Each ALG and TRC query is 3 marks and the result is 2 marks

**Sailer**

<u>S#</u>	Name	Age
S1	Smith	20
S2	Jones	30
S3	Blake	25
S4	<i>Lastname</i>	20
S5	Adams	30

**Boat**

<u>B#</u>	Name	Color
B1	Freedom	Blue
B2	Paradise	Green
B3	Miracle	Red
B4	Splendor	Yellow

**Reservation**

<u>S#</u>	<u>B#</u>	Day
S1	B1	1-Jan-15
S1	B2	2-Jan-16
S1	B3	3-Feb-17
S1	B4	4-Feb-18
S2	B1	5-Mar-16
S2	B2	6-Mar-17
S2	B3	7-Apr-18
S3	B1	8-May-17
S3	B2	9-Jul-17
S4	B1	10-Sep-17

1. Get name of boat that "*Lastname*" reserves.
2. Get sailer names for sailers who reserve Paradise.
3. Get sailer names for sailers who do not reserve any boat.
4. Get all pairs of sailer names such that the sailers concerned reserve the same boats.
5. Get sailer names for sailers who reserve all boats.
6. Get sailer names for sailers who reserve all boats except Splendor.
7. Get sailer names for sailers who reserve all boats that *Lastname* reserves.
8. Get sailer names for sailers who reserve only the boats that *Lastname* reserves
9. Get sailer names and the number of boats they reserve.
10. Get sailer names for sailers who reserve more than two boats.