COMP 3005
Assignment #1
Due: September 21

Instruction
1. You should do the assignments independently. Copying is not allowed
2. Submit your assignment as a single word/PDF document on culearn.

Queries (70 marks)

Given the **Person-Hobby** database shown below. Use relational algebra (ALG) to expression the following queries. Submit your query expressions as well as the query results for each query. Each query is 4 marks and the result is 1 mark.

Person

P#	Name	Age
P1	Smith	20
P2	Jones	30
P3	Blake	25
P4	*Lastname*	20
P5	Adams	30

Hobby

H#	Name
H1	Bowling
H2	Chess
H3	Dancing
H4	Hiking
H5	Skating
H6	Ski

Play

P#	H#	Times
P1	H1	3
P1	H2	2
P1	H3	4
P1	H4	2
P1	H5	1
P1	H6	1
P2	H1	3
P2	H2	4
P2	H3	5
P2	H4	2
P3	H2	2
P3	H3	3
P4	H2	3
P4	H3	4

1. Get the names of hobbies that "*lastname*" plays.
2. Get the names of persons who play Bowling.
3. Get the names of persons who play a hobby more than 3 times.
4. Get the names of persons who play either chess or dancing.
5. Get the names of persons who play both chess and dancing.
6. Get the person name/hobby name pairs such that the indicated person plays the indicated hobby.
7. Get the names of persons who do not play Ski.
8. Get the names of persons who do not play any hobby.
9. Get the names of persons who play all hobbies.
10. Get the names of persons who play all hobbies that "*lastname*" plays.
11. Get the names of persons who play only all the hobbies that "*lastname*" plays.
12. Get the names of persons who play all hobbies except Skating and Ski.
13. Get the names of persons, the number of hobbies and total number of times they play those hobbies.
14. Get the names of persons who play hobbies but play the least number of hobbies.