

1. (8 marks) Create a file **unionAll.pl**.

Write predicate

union(List1,List2,Result). This predicate union **List1** (input) and **List2** (input) to form **Result** (output). You must write this predicate from scratch. No pre-built **union** is allowed.

Test cases (1 mark each) are (**we do not type “;” in the queries**):

The order of numbers does not have to be the same as in the tests below.

?- union([], [1,2,3], R). R = [1, 2, 3] .	?- union([1,4,2,5,6,3], [4,1,5,2,6,3], L). L = [4, 1, 5, 2, 6, 3] .
?- union([2,11,7,9,1], [2,3,9], R). R = [11, 7, 1, 2, 3, 9] .	?- union([6,1,4,2], [7,5,2,6,0], L). L = [1, 4, 7, 5, 2, 6, 0] .

unionAll(List of Lists, Result). This predicate union all lists from **List of Lists** (input) together to form **Result** (output).

Test cases (1 mark each) are (**we do not type “;” in the queries**):

The order of numbers does not have to be the same as in the tests below.

?- unionAll([[]], R). R = [] .	?- unionAll([[3,1],[6,2,88],[2,3,4,11],[7,6,5]], R). R = [1, 88, 2, 3, 4, 11, 7, 6, 5] .
?- unionAll([[1,2,3], [], [2,3,4], []], R). R = [1, 2, 3, 4] .	
?- unionAll([[5,1,2],[6,2,3],[2,3,4,5]], R). R = [1, 6, 2, 3, 4, 5] ; false.	

How to submit

Submit **unionAll.pl** in MyCourseville.