

T1-tsa-ra.docx

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Unit Code:FIT9132

Applied Class No:A12

Comments for your marker:

Write the **relational algebra operations** for each of Task 1 queries below (your answer must show an *understanding of query efficiency*).

List of symbols for copying/pasting as you enter your answers below:

project:  $\pi$ , select:  $\sigma$ , join:  $\bowtie$ , intersect:  $\cap$ , union:  $\cup$ , minus:  $-$

1(a) missing join

R =  $\pi_{\text{town\_id}, \text{town\_name}, \text{town\_state}}$  (TOWN -  $\pi_{\text{town\_id}, \text{town\_name}, \text{town\_state}}$  (POI))

The number of attributes should be the same when you use the minus

1(b)

R =  $\pi_{\text{poi\_id}, \text{poi\_name}, \text{poi\_address}, \text{poi\_description}}$  ( $\sigma_{\text{poi\_type} = \text{'Nature and Wildlife' and poi\_review\_rating} > 3}$  (POI))

POI\_TYPE

missing join

1(c)

R =  $\pi_{\text{member\_id}, \text{member\_given\_name}, \text{poi\_id}, \text{poi\_name}, \text{review\_date\_time}, \text{review\_rating}, \text{review\_comment}}$  ( $\sigma_{\text{town\_lat} = -17.9644 \text{ and } \text{town\_long} = 122.2304}$  (TOWN  $\bowtie$  (REVIEW  $\bowtie$  POI))))

missing projects