

# FIT3155: Lab questions for week 7

<b>Objectives:</b> Concepts from weeks 5-6
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1. Implement a binomial heap data structure supporting the following operations:
  - *insert*
  - *min*
  - *extract-min*
  - *merge*
  - *decrease-priority*
  - *delete*
2. Implement a Fibonacci heap data structure supporting the same operations.
3. Recall Dijkstra's shortest path algorithm from FIT2004? Improve Dijkstra's algorithm using a Fibonacci heap. Reason what the resultant complexity of this algorithm when Fibonacci heap is used.
4. If you have any lab exercises still pending from previous weeks' lab, complete them.

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