Problem 1

Given the sequencing graph in Fig.1:

![Sequencing graph](image)

Figure 1: Sequencing graph.

Write the ILP (Integer Linear Program) equations that minimize latency under resource constraints. Assume that all operations complete in one unit of time; assume that the upper bound on the number of both resources is 2. You can use List’s algorithm to find an upper bound on the latency.
Problem 2

Given the sequencing graph in Fig. 2:

Use *force directed scheduling* to select the time step at which the colored operation should be scheduled to reduce concurrency. Assume all operations have unit delays and consider the same upper bound on the latency that you found in Problem 1.