

# Exercise for Lecture "P2P Systems"

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Submission only via the Moodle platform in PDF, plain text, or JPG/PNG.

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## Problem 9.1 - PlanetLab

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A) Choose the right answer:

	TRUE	FALSE
i) PlanetLab is based on Xen technology.	<input type="checkbox"/>	<input type="checkbox"/>
ii) An institution may join PlanetLab only if it supplies more than 2 nodes.	<input type="checkbox"/>	<input type="checkbox"/>
iii) Each user having a PlanetLab account may use all PlanetLab nodes at once.	<input type="checkbox"/>	<input type="checkbox"/>
iv) PlanetLab supports various operating systems (e.g. Windows and Linux).	<input type="checkbox"/>	<input type="checkbox"/>
v) PlanetLab is a suitable platform to evaluate P2P algorithms and protocols.	<input type="checkbox"/>	<input type="checkbox"/>

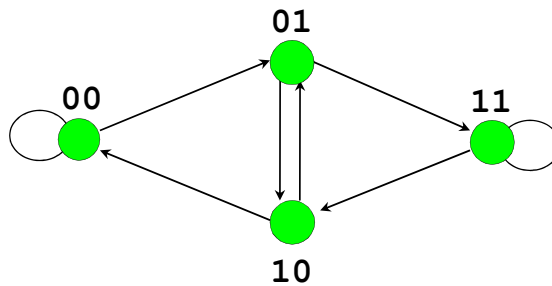
B) What is the difference between Planet Lab slices and slivers?

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### Problem 9.2 - de Bruijn Networks

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- A) Consider the following de Bruijn network with 4 nodes. Now the network size should be increased to the next smallest size. Provide an algorithm for this construction step and draw the resulting network.



- B) One problem with (binary) de Bruijn networks is that their size is limited to powers of 2. Now consider the case that a network has a different size  $m$  with  $2^{n-1} < m < 2^n$  for some  $n$ . Please provide at least two approaches how to construct a de Bruijn network in this case and discuss benefits and drawbacks of both solutions.