

# Space planning lab

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Use the `rack_template.xlsx` excel sheet or other tools to help you with the following exercises. For each scenario:

1. Propose a suitable rack layout given the information available.
2. Does any equipment potentially not belong in a data centre environment?
3. How will you address non-rackmount equipment?
4. Is there any additional equipment you would recommend?

Scenarios:

1. Quality Market is an independently owned supermarket. Equipment:
  - SonicWall router / firewall 1U
  - IBM Netfinity server running 4690OS POS 2U
  - Netgear 24-port switch for POS terminal network 1U
  - Netgear 24-port switch for EFT terminal network 1U
  - Dell server for merchandising system 2U
  - Cisco 48-port switch for core network 1U
  - 2x APC UPS units 3U each (1 for POS, 1 for other)
  - Patch panel for terminating CAT6 runs 4U
2. The Waterfront Arts Centre is a multi-use theatre, artist studio, library, museum and gallery space. Equipment:
  - Cisco router / firewall 2U
  - Ubiquiti UniFi 24-port POE switch for Wifi 1U
  - Core network switch 48-port 1U
  - Dell server for box office system 1U
  - HP Alpha server for library system 2U
  - Backup server for library system 2U
  - Custom-built mini-ITX PC for advertising screens 1U
  - HDMI matrix for advertising screens 2U
  - Raspberry pi for automatic public announcements
  - Audio matrix for public address 1U each
  - 2 Audio amplifiers for public address 2U each
  - APC UPS for rack 3U
  - Patch panel for terminating CAT6 runs 3U