Chapter 1
Introduction

1.1 Operating Systems

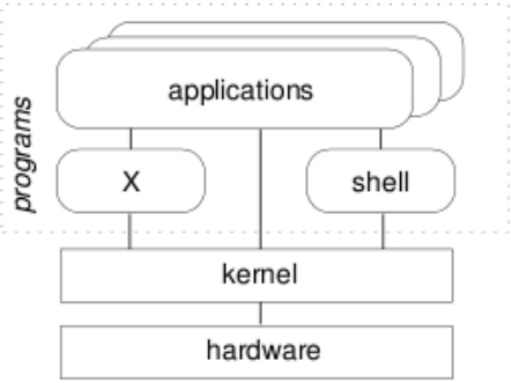
1.1.1 Linux

- θ **Linux is based on Unix**
  - ω **Unix Philosophy**
  - ω **Unix Commands**
  - ω **Unix Standards and Conventions**

1.1.2 Unix

- θ **There is some variation between Unix OS**
  - ω **Especially regarding system administration**
  - ω **Often Linux-specific things in these areas**

1.2 Unix System Architecture



- **The shell and the window environment are programs**
- **Programs only access to hardware is via the kernel**

1.3 Tables

Tables are a little more difficult. TeX automatically calculates the width of the columns.

lattice	d	q	Tmf/T
square	2	4	1.763
triangular	2	6	1.648
diamond	3	4	1.479
simple cubic	3	6	1.330
bcc	3	8	1.260
fcc	3	12	1.225

Table 1.1: A Sample Table

Chapter 2
Formulas and Equations
2.1 Aligning Equations
Follow these steps to be able to align equations:

1. **In the preamble, include the package amsmath**
2. **In the code, use begin { align } and end { align }**
3. **Within the align clause, append the & before the = to align the equal signs**

$$\mathbf{a = b} \tag{2.1}$$
$$\mathbf{a = d} \tag{2.2}$$
$$\mathbf{a = c} \tag{2.3}$$

2.2 Some Formulas

$$\frac{d}{dx}(\int_o^x f(u)du) = f(x)$$