Getting Started With Ubuntu 14 Ubuntu Manual Home

If you are an Android developer who wants to learn how to use UDOO to build Android applications that are capable of interacting with their surrounding environment, then this book is ideal for you. Learning UDOO is the next great step to start building your first real-world prototypes powered by the Android operating system.

Ubuntu Linux is the fastest growing Linux-based operating system, and Beginning Ubuntu Linux, Fifth Edition teaches all of us—including those who have never used Linux—how to use it productively, whether you come from Windows or the Mac or the world of open source. Beginning Ubuntu Linux, Fifth Edition shows you how to take advantage of Lucid Lynx. Based on the best-selling previous edition, Emilio Raggi maintains a fine balance between teaching Ubuntu and introducing new features. Whether you aim to use it in the home or in the office, you'll be introduced to the world of Ubuntu Linux, from simple word processing to using cloud services. You'll learn how to control the Ubuntu system, which you just installed from the book's DVD, as you are guided through common tasks such as configuring the system's graphical user interface (GUI), listening to audio CDs and MP3s, producing documents, using VoIP and chat, and of course, general system maintenance. This book also supplies a series of comprehensive tutorials on Ubuntu administration and security—essential for any Ubuntu user—while not neglecting matters pertaining to office applications and the cloud.

LibreOffice is a freely-available, full-featured office suite that runs on Windows, Linux, and Mac OS X computers. This book is for anyone who wants to get up to speed quickly with LibreOffice 5.2. It introduces Writer (word processing), Calc (spreadsheets), Impress (presentations), Draw (vector drawings), Math (equation editor), and Base (database). This book was written by volunteers from the LibreOffice community. Profits from the sale of this book will be used to benefit the community.

Over 50 recipes on the core features of Apache Mesos and running big data frameworks in Mesos About This Book Learn to install and configure Mesos to suit the needs of your organization Follow step-by-step instructions to deploy application frameworks on top of Mesos, saving you many hours of research and trial and error Use this practical guide packed with powerful recipes to implement Mesos and easily integrate it with other application frameworks Who This Book Is For This book is for system administrators, engineers, and big data programmers. Basic experience with big data technologies such as Hadoop or Spark would be useful but is not essential. A working knowledge of Apache Mesos is expected. What You Will Learn Set up Mesos on different operating systems Use the Marathon and Chronos frameworks to manage multiple applications Work with Mesos and Docker Integrate Mesos with Spark and other big data frameworks Use networking features in Mesos for effective communication between containers Configure Mesos for high availability using Zookeeper Secure your Mesos clusters with SASL and Authorization ACLs Solve everyday problems and discover the best practices In Detail Apache Mesos is open source cluster sharing and management software. Deploying and managing scalable applications in large-scale clustered environments can be difficult, but Apache Mesos makes it easier with efficient resource isolation and sharing across application frameworks. The goal of this book is to guide you through the practical implementation of the Mesos core along with a number of Mesos supported frameworks. You will begin by installing Mesos and then learn how to configure clusters and maintain them. You will also see how to deploy a cluster in a production environment with high availability using Zookeeper. Next, you will get to grips with using Mesos, Marathon, and Docker to build and deploy a PaaS. You will see how to schedule jobs with Chronos. We'll demonstrate how to integrate Mesos with big data frameworks such as Spark, Hadoop, and Storm. Practical solutions backed with clear examples will also show you how to deploy elastic big data jobs. You will find out how to deploy a scalable continuous

integration and delivery system on Mesos with Jenkins. Finally, you will configure and deploy a highly scalable distributed search engine with ElasticSearch. Throughout the course of this book, you will get to know tips and tricks along with best practices to follow when working with Mesos. Style and approach This step-by-step guide is packed with powerful recipes on using Apache Mesos and shows its integration with containers and big data frameworks.

Building desktop applications doesn't have to be difficult. Using Python & Qt5 you can create fully functional desktop apps in minutes. This is the 4th Edition of Create GUI Applications, updated for 2020 & PySide2 Starting from the very basics, this book takes you on a tour of the key features of PySide2 you can use to build real-life applications. Learn the fundamental building blocks of Qt applications — Widgets, Layouts & Signals and learn how Qt uses the event loop to handle and respond to user input. Design beautiful UIs with Qt Designer and customize the look and feel of your applications with Qt Style Sheets and custom widgets. Use Qt's MVC-like ModelViews framework to connect data sources to your widgets, including SQL databases, numpy and pandas data tables, to build-data driven application. Visualize data using matplotlib & PyQtGraph and connect with external data sources to build live dashboards. Learn how to use threads and processes to manage long-running tasks and communicate with external services. Parse data and visualize the output in logs and progress bars. The book includes usability and architectural tips to help you build maintainable and usable PySide2 applications from the start. Finally, once your application is ready to be released, discover how to package it up into professional-quality installers, ready to ship. The book includes - 665 pages of hands-on PySide2 exercises - 211 code examples to experiment with - Support forum for all readers - Includes 4 example apps - Compatible with Python 3.4+ - Code free to reuse in your own projects

The CompTIA Linux+/LPIC-1 Training and Exam Preparation Guide, First Edition is a comprehensive resource designed and written with one fundamental goal in mind: teach Linux in an easy and practical manner while preparing for the Linux+/LPIC-1 exams. This book provides an in-depth coverage of all official exam objectives. This book is organized in two parts: Part One covers LX0-103/101-400 exam objectives and Part Two covers LX0-104/102-400 exam objectives. The book includes hands-on examples, step-by-step exercises, chapter-end review of concepts, files, and commands learned, and 790 challenging practice questions. This book uses "learn-by-doing" methodology. It begins with guidance on how to download a virtualization software and two Linux distribution versions and then provides instructions on how to create VMs and install Linux in them to set up a lab environment for hands-on learning. Throughout the book, appropriate command prompts are employed to identify the lab system and user to run a command. Each command and task presented in the book was actually performed and tested on lab systems. Followed by the lab environment setup in Part One, the book presents the essentials of Linux incl. interaction with Linux, basic commands, file management (permissions, ownership, linking, searching, special permissions, editing), filter programs, regex, shell features, and process handling. Subsequent topics focus on system administration incl. shared libraries, Debian and RPM package management, system boot and initialization, hardware management, kernel modules, storage partitioning, file system creation and repairs, quota handling, and swap space administration. This brings Part One to an end and you should be able to take the quiz in Appendix A to test your readiness for the LX0-103/101-400 exam. Part Two covers all the objectives for the LX0-104/102-400 exam. It covers shell scripts with a presentation and line-by-line analysis of several scripts. Building a simple SQL database and performing queries comes next. A detailed comprehension of local authentication files, user creation, password aging, and shell startup files follows. The book covers networking concepts, reference models, and terms that accompany exercises on interface configuration, hostname change, and route management. A discussion of network testing and debugging tools is furnished and their usage is demonstrated, followed by topics on

internationalization, localization, time synchronization, name resolution, X Window, display/desktop managers, accessibility options, printer and print queue administration, task scheduling, system logging, system and service access controls, emailing and email aliasing, searching for special files, and so on. This brings Part Two to an end and you should be able to take the quiz in Appendix C to test your readiness for the LX0-104/102-400 exam. Highlights: * 100% coverage of ALL official exam objectives (version 4.0) * Enumerated and descriptive knowledge areas (under exam objectives) to assist in identifying and locating them * A summarized and convenient view showing exam objectives, chapters they are discussed in, associated weights, the number of questions to expect on the real exam, and other useful information * Separate section on each exam * 15 chapters in total (8 for LX0-103/101-400 and 7 for LX0-104/102-400) * Detailed guidance on building lab environment * 49 tested, hands-on exercises with explanation * Numerous tested, practical examples for clarity and understanding * Chapter-end one-sentence review of key topics * 790 single-response, multiple-response, and fill-in-the-blank practice questions/answers to test your knowledge of the material and exam readiness * Equally good for self-study and in-class training

This book presents the proceedings of the 6th International Conference on Frontier Computing, held in Kuala Lumpur, Malaysia on July 3–6, 2018, and provides comprehensive coverage of the latest advances and trends in information technology, science and engineering. It addresses a number of broad themes, including communication networks, business intelligence and knowledge management, web intelligence, and related fields that inspire the development of information technology. The contributions cover a wide range of topics: database and data mining, networking and communications, web and internet of things, embedded systems, soft computing, social network analysis, security and privacy, optical communication, and ubiquitous/pervasive computing. Many of the papers outline promising future research directions. The book is a valuable resource for students, researchers and professionals, and also offers a useful reference guide for newcomers to the field.

This timely text/reference describes the development and implementation of large-scale distributed processing systems using open source tools and technologies. Comprehensive in scope, the book presents state-of-the-art material on building high performance distributed computing systems, providing practical guidance and best practices as well as describing theoretical software frameworks. Features: describes the fundamentals of building scalable software systems for large-scale data processing in the new paradigm of high performance distributed computing; presents an overview of the Hadoop ecosystem, followed by step-by-step instruction on its installation, programming and execution; Reviews the basics of Spark, including resilient distributed datasets, and examines Hadoop streaming and working with Scalding; Provides detailed case studies on approaches to clustering, data classification and regression analysis; Explains the process of creating a working recommender system using Scalding and Spark.

hyperC is an brand-new OS designed specially for low-power device, such as Internet-of-Things (IoT). hyperC takes advantage of modern power management schemes and well-utilized acceleration functions of the underlying hardware.

MariaDB is a database that has become very popular in the few short years that it has been around. It does not require a big server or expensive support contract. It is also powerful enough to be the database of choice for some of the biggest and most popular websites in the world, taking full advantage of the latest computing hardware available. From installing and configuring through basic usage and maintenance, each chapter in this revised and expanded guide leads on sequentially and logically from the one before it, introducing topics in their natural order so you learn what you need, when you need it. The book is based on the latest release of MariaDB and covers all the latest features

and functions. By the end of this beginner-friendly book, not only will you have a running installation of MariaDB, but you will have practical, hands-on experience in the basics of how to install, configure, administer, use, and maintain it.

This edition is the update to the best-selling first edition introducing Ubuntu Linux. Adapted from the best-selling first edition, this book guides readers through the most commonly desired yet confusing concepts and tasks confronted by new Linux users. The book is purposely focused on end users to satisfy the growing interest in migrating away from Windows to the increasingly mature Linux desktop platform. This book includes a DVD containing the latest version of Ubuntu and hundreds of useful applications. The book serves as a guide to a rapid and transparent familiarization of those features most treasured by general and power desktop users alike.

"DVD includes the full Ubuntu 13.10 distribution for Intel x86 computers as well as the complete LibreOffice office suite and hundreds of additional programs and utilities"--Page 4 of cover.

Learn how to get started with robotics programming using Robot Operation System (ROS). Targeted for absolute beginners in ROS, Linux, and Python, this short guide shows you how to build your own robotics projects. ROS is an open-source and flexible framework for writing robotics software. With a hands-on approach and sample projects, Robot Operating System for Absolute Beginners will enable you to begin your first robot project. You will learn the basic concepts of working with ROS and begin coding with ROS APIs in both C++ and Python. What You'll Learn Install ROS Review fundamental ROS concepts Work with frequently used commands in ROS Build a mobile robot from scratch using ROS Who This Book Is For Absolute beginners with little to no programming experience looking to learn robotics programming.

LibreOffice is a freely-available, full-featured office suite that runs on Windows, Linux, and macOS computers. This book is for anyone who wants to get up to speed quickly with LibreOffice 6.0. It introduces Writer (word processing), Calc (spreadsheets), Impress (presentations), Draw (vector drawings), Math (equation editor), and Base (database). This book was written by volunteers from the LibreOffice community. Profits from the sale of this book will be used to benefit the community.

Ubuntu is a Debian-based Linux distribution with versions available for both desktops as well as servers. The Server edition, Ubuntu Server, has set the industry standard for Linux in the data center as well as the cloud. Organizations, inventors, and hobbyists alike will benefit from its flexible configuration, fast deployment, and a plethora ...

Provides information on using the latest Ubuntu release, covering such topics as installation, customizing the GNOME panel, installing applications, using printers and scanners, connecting to the Internet, using multimedia, and security.

LibreOffice is a freely-available, full-featured office suite that runs on Windows, Linux, and Mac OS X computers. This book is for anyone who wants to get up to speed quickly with LibreOffice 5.1. It introduces Writer (word processing), Calc (spreadsheets), Impress (presentations), Draw (vector drawings), Math (equation editor), and Base (database). This book was written by volunteers from the LibreOffice community. Profits from the sale of this book will be used to benefit the community.

Know how to set up, defend, and attack computer networks with this revised and expanded second edition. You will learn to configure your network from the ground up, beginning with developing your own private virtual test environment, then setting up your own DNS server and AD infrastructure. You will continue with more advanced network services, web servers, and

database servers and you will end by building your own web applications servers, including WordPress and Joomla!. Systems from 2011 through 2017 are covered, including Windows 7, Windows 8, Windows 10, Windows Server 2012, and Windows Server 2016 as well as a range of Linux distributions, including Ubuntu, CentOS, Mint, and OpenSUSE. Key defensive techniques are integrated throughout and you will develop situational awareness of your network and build a complete defensive infrastructure, including log servers, network firewalls, web application firewalls, and intrusion detection systems. Of course, you cannot truly understand how to defend a network if you do not know how to attack it, so you will attack your test systems in a variety of ways. You will learn about Metasploit, browser attacks, privilege escalation, pass-the-hash attacks, malware, man-in-the-middle attacks, database attacks, and web application attacks. What You'll Learn Construct a testing laboratory to experiment with software and attack techniques Build realistic networks that include active directory, file servers, databases, web servers, and web applications such as WordPress and Joomla! Manage networks remotely with tools, including PowerShell, WMI, and WinRM Use offensive tools such as Metasploit, Mimikatz, Veil, Burp Suite, and John the Ripper Exploit networks starting from malware and initial intrusion to privilege escalation through password cracking and persistence mechanisms Defend networks by developing operational awareness using auditd and Sysmon to analyze logs, and deploying defensive tools such as the Snort intrusion detection system, IPFire firewalls, and ModSecurity web application firewalls Who This Book Is For This study guide is intended for everyone involved in or interested in cybersecurity operations (e.g., cybersecurity professionals, IT professionals, business professionals, and students)

With the help of top-notch examples and activities, this workshop helps you to get practical with Docker containers. You'll learn its usage, advantages, and best practices to make the software deployment process smoother.

IBM® z/OS® Container Extensions (IBM zCX) is a new feature of the next version of the IBM z/OS Operating System (z/OS V2.4). It makes it possible to run Linux on IBM Z® applications that are packaged as Docker container images on z/OS. Application developers can develop, and data centers can operate, popular open source packages, Linux applications, IBM software, and third-party software together with z/OS applications and data. This IBM Redbooks® publication helps you to understand the concepts, business perspectives and reference architecture for installing, tailoring, and configuring zCX in your own environment.

Getting Started with Ubuntu 14.04 is a comprehensive beginner's guide designed for the Ubuntu operating system. It is written under an open-source license and is free for you to download, read, modify, and share.This manual will help you become familiar with everyday tasks such as surfing the web, listening to music, and scanning documents. With an emphasis on easy-to-follow instructions, it is suitable for all levels of experience.

Ubuntu Unleashed 2014 Edition is filled with unique and advanced information for everyone who wants to make the most of the Linux-based Ubuntu operating system. This new edition has been thoroughly revised and updated by a long-time Ubuntu community leader to reflect the exciting new Ubuntu 13.10 and the forthcoming Ubuntu 14.04. Former Ubuntu Forum administrator Matthew Helmke covers all you need to know about Ubuntu 13.10/14.04 installation, configuration, productivity, multimedia, development, system administration, server operations, networking, virtualization, security, DevOps, and more—including intermediate-to-advanced techniques you won't find in any other book. Helmke presents up-to-the-minute introductions to Ubuntu's key productivity and Web development tools, programming languages, hardware support, and more. You'll find new or improved coverage of Ubuntu's Unity interface, various types of servers, software repositories, database options, virtualization and cloud services, development tools, monitoring, troubleshooting, Ubuntu's push into mobile and other touch screen devices, and much more. Matthew Helmke served from 2006 to 2011

on the Ubuntu Forum Council, providing leadership and oversight of the Ubuntu Forums, and spent two years on the Ubuntu regional membership approval board for Europe, the Middle East, and Africa. He has written about Ubuntu for several magazines and websites and is the lead author of The Official Ubuntu Book. He works for Pearson Education writing technical documentation for educational testing software. Detailed information on how to… Configure and customize the Unity desktop Get started with multimedia and productivity applications, including LibreOffice Manage Linux services, users, and software packages Administer and run Ubuntu from the command line Automate tasks and use shell scripting Provide secure remote access and configure a secure VPN Manage kernels and modules Administer file, print, email, proxy, LDAP, DNS, and HTTP servers (Apache, Nginx, or alternatives) Learn about new options for managing large numbers of servers Work with databases (both SQL and the newest NoSQL alternatives) Get started with virtualization Build a private cloud with Juju and Charms Learn the basics about popular programming languages including Python, PHP, Perl, and new alternatives such as Go and Rust Learn about Ubuntu's work toward usability on touch-screen and phone devices Ubuntu 13.10 on DVD DVD includes the full Ubuntu 13.10 distribution for Intel x86 computers as well as the complete LibreOffice office suite and hundreds of additional programs and utilities. Free Kick Start Chapter! Purchase this book and receive a free Ubuntu 14.04 Kick Start chapter after Ubuntu 14.04 is released. See inside back cover for details

Learn how to install, configure and implement the Elastic Stack (Elasticsearch, Logstash and Kibana) – the invaluable tool for anyone deploying a centralized log management solution for servers and apps. You will see how to use and configure Elastic Stack independently and alongside Puppet. Each chapter includes real-world examples and practical troubleshooting tips, enabling you to get up and running with Elastic Stack in record time. Fully customizable and easy to use, Elastic Stack enables you to be on top of your servers all the time, and resolve problems for your clients as fast as possible. Supported by Puppet and available with various plugins. Get started with Beginning Elastic Stack today and see why many consider Elastic Stack the best option for server log management. What You Will Learn: Install and configure Logstash Use Logstash with Elasticsearch and Kibana Use Logstash with Puppet and Foreman Centralize data processing Who This Book Is For: Anyone working on multiple servers who needs to search their logs using a web interface. It is ideal for server administrators who have just started their job and need to look after multiple servers efficiently.

What is the difference between a virtual machine and a Docker container? A virtual machine (VM) is like a house. It is fully contained with its own plumbing and heating and cooling system. If you want another house, you build a new foundation, with new walls, new plumbing, and its own heating and cooling system. VMs are large. They start their own operating systems. Containers are like apartments in an apartment building. They share infrastructure. They can be many different sizes. You can have different sizes depending on the needs. Containers "live" in a Docker host. If you build a house, you need many resources. If you build an apartment building, each unit shares resources. Like an apartment, Docker is smaller and satisfies specific needs, is more agile, and more easily changed. This IBM® Redbooks® publication examines the installation and operation of Docker Enterprise Edition on the IBM Z® platform.

Ubuntu Linux--the most popular Linux distribution on the planet--preserves the spirit embodied in the ancient African word ubuntu, which means both "humanity to others" and "I am what I am because of who we all are." Ubuntu won the Linux Journal Reader's Choice Award for best Linux distribution and is consistently the top-ranked Linux variant on DistroWatch.com. The reason this distribution is so widely popular is that Ubuntu is designed to be useful, usable, customizable, and always available for free worldwide. Ubuntu Hacks is your one-stop source for all of the community knowledge you need to get the most out of Ubuntu: a collection of 100

tips and tools to help new and experienced Linux users install, configure, and customize Ubuntu. With this set of hacks, you can get Ubuntu Linux working exactly the way you need it to. Learn how to: Install and test-drive Ubuntu Linux. Keep your system running smoothly Turn Ubuntu into a multimedia powerhouse: rip and burn discs, watch videos, listen to music, and more Take Ubuntu on the road with Wi-Fi wireless networking, Bluetooth, etc. Hook up multiple displays and enable your video card's 3-D acceleration Run Ubuntu with virtualization technology such as Xen and VMware Tighten your system's security Set up an Ubuntu-powered server Ubuntu Hacks will not only show you how to get everything working just right, you will also have a great time doing it as you explore the powerful features lurking within Ubuntu. "Put in a nutshell, this book is a collection of around 100 tips and tricks which the authors choose to call hacks, which explain how to accomplish various tasks in Ubuntu Linux. The so called hacks range from down right ordinary to the other end of the spectrum of doing specialised things...More over, each and every tip in this book has been tested by the authors on the latest version of Ubuntu (Dapper Drake) and is guaranteed to work. In writing this book, it is clear that the authors have put in a lot of hard work in covering all facets of configuring this popular Linux distribution which makes this book a worth while buy." -- Ravi Kumar, Slashdot.org

ROS is an open-source, meta-operating system for your robot which provides libraries and tools to help software developers create robot applications. This book will help you to design, build and simulate complex robots including mobile robots, robotic arms, and micro aerial vehicles, using this meta-operating system.

A guide to Ubuntu covers such topics as installation, configuration, the filesystem, the command line, system maintenance and security, networking, using OpenOffice.org, Web browsing, and playing games.

Strategically design, troubleshoot, and automate Docker containers from development to deployment About This Book Utilize current and emergent technologies for effective Docker orchestration and management A step-by-step guide to diagnosing and fixing problems with Docker containers. Who This Book Is For This book is intended for seasoned solutions architects, developers, and programmers, system engineers, and administrators to help you troubleshoot common areas of Docker containerization. If you are looking to build production-ready Docker containers for automated deployment, you will be able to master and troubleshoot both the basic functions and the advanced features of Docker. Advanced familiarity with the Linux command line syntax, unit testing, the Docker Registry, Github, and leading container hosting platforms and Cloud Service Providers (CSP) are the prerequisites. What You Will Learn Install Docker ecosystem tools and services, Microservices and N-tier applications Create re-usable, portable containers with help of automation tools Network and inter-link containers Attach volumes securely to containers Consume and troubleshoot Docker APIs Troubleshooting issue of Docker deployment in Public cloud Ease the process of container management with Kubernetes In Detail This book will traverse some common best practices to for complex application scenarios where troubleshooting can be successfully employed to provide the repeatable processes and advantages that containers can deliver. This book will be a practical guide showing how to fix real-life issues related to installation, memory, Dockerfile syntax, connection, authorization, networking and so on in Docker. This book will also teach how to solve errors that occur during advanced setup and administration and deployment in a step-by-step fashion. By sequentially working through the real-world production scenarios in each chapter throughout the book, you will gain insight into and mastery of common areas not only for effective troubleshooting, but ways and means to avoid troubleshooting in the first place. This book will also cover tips and tricks that make the workflow easier. Style and approach An easy-to-follow guide full of interactive examples of real-world development and deployment scenarios. Ample screenshots, workflows, complementary

tools, and related terminal commands are provided to address a wide range of practical and situational applications.

This IBM® Redbooks® publication provides a general explanation of data protection through encryption and IBM Z® pervasive encryption with a focus on Linux on IBM Z encryption for data at-rest. It also describes how the various hardware and software components interact in a Linux on Z encryption environment for . In addition, this book concentrates on the planning and preparing of the environment. It offers implementation, configuration, and operational examples that can be used in Linux on Z volume encryption environments. This publication is intended for IT architects, system administrators, and security administrators who plan for, deploy, and manage security on the Z platform. The reader is expected to have a basic understanding of IBM Z security concepts.

Discover how to get the most out of Ubuntu for work, home, and play. Learning a new operating system can feel daunting, especially if you're used to Windows or OS X. If you've been afraid to try Ubuntu because you don't know where to start, this book introduces you to a wide selection of software and settings that will make your computer ready to work for you. You'll see how Ubuntu can make your computing life easy. In addition to a tour of Ubuntu's modern and easy-to-use interface, you'll also learn how Ubuntu's Software Updater keeps all of your software secure and up-to-date. Browsing the Internet becomes faster and safer. Creating documents and sharing with others is built right in. Enjoying your music and movie libraries helps you unwind. Ubuntu is the world’s third most popular operating system and powers desktop and laptop computers, servers, private and public clouds, and embedded devices. There's never been a better time to install Ubuntu and move to an open source way of life. Completely updated for this exciting second edition, Beginning Ubuntu for Windows and Mac Users will help you start your journey into Free and Open Source Software with Ubuntu 16.04 LTS. What You'll Learn Understand the advantages of Ubuntu and its variants—Kubuntu, Xubuntu, and more Install Ubuntu on its own or alongside your computer's existing operating system Search Ubuntu's catalog of thousands of applications—all ready to install with a single click Work with files and disks that were created with Windows and OS X Run simple, interesting tasks and games using the command line Customize Ubuntu in powerful ways and get work done with virtual machines Who This Book Is For Anyone who wants to move to using an open source operating system.

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Deploy your own private mobile network with OpenBTS, the open source software project that converts between the GSM and UMTS wireless radio interface and open IP protocols. With this hands-on, step-by-step guide, you’ll learn how to use OpenBTS to construct simple, flexible, and inexpensive mobile networks with software. OpenBTS can distribute any internet connection as a mobile network across a large geographic region, and provide connectivity to remote devices in the Internet of Things. Ideal for telecom and software engineers new to this technology, this book helps you build a basic OpenBTS network with voice and SMS services and data capabilities. From there, you can create your own niche product or experimental feature. Select hardware, and set up a base operating system for your project Configure, troubleshoot, and use performance-tuning techniques Expand to a true multinode mobile network complete with Mobility and Handover Add general packet radio service (GPRS) data connectivity, ideal for IoT devices Build applications on top of the OpenBTS NodeManager control and event APIs

Schedule and run application containers using Kubernetes Key Features Get to

grips with a wide range of tools to monitor and secure your deployments Manage your container clusters and networks using Kubernetes Get well-versed with the fundamentals of Kubernetes Book Description Kubernetes has continued to grow and achieve broad adoption across various industries, helping you to orchestrate and automate container deployments on a massive scale. Based on the recent release of Kubernetes 1.12, Getting Started with Kubernetes gives you a complete understanding of how to install a Kubernetes cluster. The book focuses on core Kubernetes constructs, such as pods, services, replica sets, replication controllers, and labels. You will understand cluster-level networking in Kubernetes, and learn to set up external access to applications running in the cluster. As you make your way through the book, you'll understand how to manage deployments and perform updates with minimal downtime. In addition to this, you will explore operational aspects of Kubernetes , such as monitoring and logging, later moving on to advanced concepts such as container security and cluster federation. You'll get to grips with integrating your build pipeline and deployments within a Kubernetes cluster, and be able to understand and interact with open source projects. In the concluding chapters, you'll orchestrate updates behind the scenes, avoid downtime on your cluster, and deal with underlying cloud provider instability within your cluster. By the end of this book, you'll have a complete understanding of the Kubernetes platform and will start deploying applications on it. What you will learn Download, install, and configure the Kubernetes code base Set up and access monitoring and logging for Kubernetes clusters Set up external access to applications running in the cluster Learn how to manage and scale kubernetes with hosted platforms on AWS, Azure, and GCP Run multiple clusters and manage them from a single control plane Discover top tools for deploying and managing a Kubernetes cluster Learn how to get production ready and harden Kubernetes operations, networking, and storage Who this book is for Getting Started with Kubernetes is for developers, system administrators, and DevOps engineers who want to automate the deployment process and scale their applications. No prior knowledge of Kubernetes is required.

Open-Source Lab: How to Build Your Own Hardware and Reduce Scientific Research Costs details the development of the free and open-source hardware revolution. The combination of open-source 3D printing and microcontrollers running on free software enables scientists, engineers, and lab personnel in every discipline to develop powerful research tools at unprecedented low costs. After reading Open-Source Lab, you will be able to: Lower equipment costs by making your own hardware Build open-source hardware for scientific research Actively participate in a community in which scientific results are more easily replicated and cited Numerous examples of technologies and the open-source user and developer communities that support them Instructions on how to take advantage of digital design sharing Explanations of Arduinos and RepRaps for scientific use A detailed guide to open-source hardware licenses and basic

principles of intellectual property

Full of tips, tricks, and helpful pointers, this is a hands-on, project-based guide to Ubuntu, a completely free Linux operating system. The authors tackle topics of interest to the everyday user, such as customizing the desktop, installing programs, and playing audio and video.

How long does it take for your website to load? Web performance is just as critical for small and medium-sized websites as it is for massive websites that receive tons of hits. Before you pour money and time into rewriting your code or replacing your infrastructure, first consider a reverse-caching proxy server like Varnish. With this practical book, you'll learn how Varnish can give your website or API an immediate performance boost. Varnish mimicks the behavior of your webserver, caches its output in memory, and serves the result directly to clients without having to access your webserver. If you're a web developer familiar with HTTP, this book helps you master Varnish basics, so you can get up and running in no time. You'll learn how to use the Varnish Configuration Language and HTTP best practices to achieve faster performance and a higher hit rate. Understand how Varnish helps you gain optimum web performance Use HTTP to improve the cache-ability of your websites, web applications, and APIs Properly invalidate your cache when the origin data changes Optimize access to your backend servers Avoid common mistakes when using Varnish in the wild Use logging and debugging tools to examine the behavior of Varnish

Whether you're deploying applications on-premise or in the cloud, this cookbook is for developers, operators, and IT professionals who need practical solutions for using Docker. The recipes in this book will help developers go from zero knowledge to distributed applications packaged and deployed within a couple of chapters. IT professionals will be able to use this cookbook to solve everyday problems, as well as create, run, share, and deploy Docker images quickly. Operators will learn and understand what developers are excited about and start to adopt the tools that will change the way they work.--