

Sync vs Async Communication

Request and wait for a response
Fire and forget with messages/events

@lorenz/23

Synchronous



Request-response model

Send a request and wait for some response
Example: API requests

Asynchronous



Fire and forget model

Send message/event and forget
Example: Event Driven Architecture

For Beginners Async Communication

Kai Hwang



For Beginners Async Communication:

Beginning JavaScript Jeremy McPeak, 2015-02-18 The bestselling JavaScript guide updated with current features and best practices Beginning JavaScript 5th Edition shows you how to work effectively with JavaScript frameworks functions and modern browsers and teaches more effective coding practices using HTML5 This new edition has been extensively updated to reflect the way JavaScript is most commonly used today introducing you to the latest tools and techniques available to JavaScript developers Coverage includes modern coding practices using HTML5 markup the JSON data format DOM APIs the jQuery framework and more Exercises with solutions provide plenty of opportunity to practice and the companion website offers downloadable code for all examples given in the book Learn JavaScript using the most up to date coding style Understand JSON functions events and feature detection Utilize the new HTML5 elements and the related API Explore new features including geolocation local storage and more JavaScript has shaped the Web from a passive medium into one that is rich dynamic and interactive No matter the technology on the server side it s JavaScript that makes it come alive in the browser To learn JavaScript the way it s used today Beginning JavaScript 5th Edition is your concise guide

Django for Beginners, Fifth Edition William S. Vincent, 2024-07-11 Completely updated for Django 5 Django for Beginners is a project based introduction to Django the popular Python based web framework It is suitable for total beginners who have never built a website before and professional programmers looking for a fast paced guide to modern web development and Django fundamentals The completely revised fifth edition takes a practical approach introducing concepts through six projects designed to simulate real world scenarios From a Hello World website to a message board application a blogging platform and a newspaper CMS you ll learn about Django s architecture and how to add new functionality step by step This book is for readers with basic Python knowledge and programmers transitioning to Django from other web frameworks It is a fast paced guide that aligns with current best practices and modern web development with Django ensuring you re learning the most relevant and applicable skills In the book you ll learn how to Build 6 websites from scratch including a Blog platform and Newspaper CMS Deploy online using security best practices Implement signup login logout password change and password reset Customize the look and feel of your sites Write tests and run them for all your code Add permissions and authorizations to make your app more secure If you re curious about Python based web development Django for Beginners is a best practices guide to writing testing and deploying your own websites quickly

Beginning ASP.NET for Visual Studio 2015 William Penberthy, 2016-01-26 The complete guide to the productivity and performance enhancements in ASP NET Beginning ASP NET for Visual Studio 2015 is your ultimate guide to the latest upgrade of this historically popular framework Fully updated to align with the vNext release this new edition walks you through the new tools and features that make your workflow smoother and your applications stronger You ll get up to speed on the productivity and performance improvements and learn how Microsoft has committed itself to more continuous innovation by increasing its release cadence for all

products and services going forward Coverage includes Async aware debugging ADO NET idle connection resiliency managed return value inspection ASP NET app suspension on demand large object heap compaction multi core JIT and more The news of an off cycle update to ASP NET came as a surprise but its announcement garnered cheers at the 2014 Microsoft BUILD conference This guide shows you what all the fuss is about and how Microsoft overhauled the latest ASP NET release Get acquainted with the new developer productivity features Master the new tools that build better applications Discover what s new in Windows Store app development Learn how Microsoft fixed the issues that kept you from v5 Over 38 million websites are currently using ASP NET and the new upgrade is already leading to increased adoption Programmers need to master v6 to remain relevant as web development moves forward Beginning ASP NET for Visual Studio 2015 walks you through the details and shows you what you need to know so you can get up and running quickly *Beginning ChatGPT for Python* Lydia Evelyn, Bruce Hopkins, 2024-11-22 Unlock the future of software development and empower yourself to elevate your Python applications by harnessing the power of AI as this field continues to grow and evolve Perfect for beginner to intermediate Python programmers this book breaks down the essentials of using ChatGPT and OpenAI APIs You ll start with the basics learning to authenticate send prompts generate responses test in the Playground and handle errors with ease Each chapter includes hands on exercises that bring concepts to life demonstrating different API functionalities and practical applications You ll master models like GPT 4o GPT 4 GPT 3 5 Whisper and DALL E enabling you to enhance your applications with cutting edge AI Discover how generative AI tools like ChatGPT can automate tedious tasks rather than replace jobs Leverage ChatGPT s powerful Natural Language Processing NLP capabilities to handle various formats of unstructured text within your Python apps Quickly see how easy it is to use ChatGPT as your AI pair programmer boosting your productivity and speed This step by step guide will have you creating intelligent chatbots that can automatically process messages from Slack or Discord With Beginning ChatGPT for Python you ll master the ChatGPT and OpenAI APIs building intelligent applications that offer a personalized and engaging user experience What You ll Learn Connect with the ChatGPT and OpenAI APIs and send effective prompts Harness parameters like temperature and top_p to create unique and engaging responses from ChatGPT Create an intelligent assistant bot for Slack that automates tasks and enhances productivity Develop a bot that can moderate conversations and manage communities on Discord Add context to your prompts to get more accurate and relevant responses Who This Book Is For Python developers and enthusiasts who aspire to employ OpenAI and ChatGPT in the creation of intelligent applications to enhance productivity *Beginning Ajax with ASP.NET* Wallace B. McClure, 2006-09-05 By leveraging a number of existing and popular technologies Ajax allows Web applications to make quick updates to the user interface without reloading the entire browser page It is an ideal resource for developers who want to get started with Ajax oriented Web developments using current technologies in particular Atlas **DOS for Beginners** Dan Kauffman, 1990 *Communications and Networking for the IBM PC* Larry E. Jordan, Bruce Churchill, 1983 Treats in

General the Applications of the IBM PC in Data Communications in Detail Local Area Networking **Communications and Networking for the IBM PC and Compatibles** Larry E. Jordan, Bruce Churchill, 1992 Complete full spectrum guide to network planning and implementation by practicing systems professionals Features step by step explanations of every aspect of data communications including cost benefit installation and troubleshooting procedures **The ARRL Handbook for Radio Communications** ,2003 *Data Communications Software Design* Malcolm G. Lane, 1985 *Communications and Networking for the IBM PC & Compatibles* Larry E. Jordan, Bruce Churchill, 1987 Communication Electronics Louis Frenzel, 1999-11 Communication Electronics 3 e is a comprehensive introduction to communication circuits and systems for students with a background in basic electronics All of the chapters have been revised and updated to include the latest circuitry systems and applications **The ARRL Handbook for Radio Amateurs, 2003** American Radio Relay League, 2002 Includes a searchable index of QST product reviews a database on over 1000 equipment and parts suppliers and several other programs Computer Architecture, Tutorial Daniel D. Gajski, 1987 This tutorial is intended for computer system architects designers and managers who need a broad range of knowledge on advanced topics in computer architecture The book can be used as a textbook or as a research and design reference The goal of this tutorial is to present the state of the art in advanced computer architecture Part I deals with the concepts underlying current architectures Part II covers a variety of approaches and techniques being used in the design of advanced computer systems **The ARRL Handbook for the Radio Amateur** ,2001 **Introduction to Data Communications Using Novell NetWare (4.11)** Ann Beheler, 1999 For Introductory courses in Data Communications or Novell Netware Describes major data communications devices and systems Shows the use of both wide area and local area networks Explains network design fundamentals Discusses important Novell Netware 4.11 topics ranging from overview through user creation login script creation printing file system rights Novell Directory Services rights and troubleshooting Publisher **New York Court of Appeals. Records and Briefs.** New York (State)., **Tutorial Supercomputers** Kai Hwang, 1984 PC ,1988-07 The software catalog microcomputers Menu (Firm) (Fort Collins, Colo.), 1989

For Beginners Async Communication: Bestsellers in 2023 The year 2023 has witnessed a remarkable surge in literary brilliance, with numerous engrossing novels captivating the hearts of readers worldwide. Lets delve into the realm of top-selling books, exploring the captivating narratives that have charmed audiences this year. For Beginners Async Communication : Colleen Hoover's "It Ends with Us" This touching tale of love, loss, and resilience has gripped readers with its raw and emotional exploration of domestic abuse. Hoover expertly weaves a story of hope and healing, reminding us that even in the darkest of times, the human spirit can succeed. For Beginners Async Communication : Taylor Jenkins Reids "The Seven Husbands of Evelyn Hugo" This spellbinding historical fiction novel unravels the life of Evelyn Hugo, a Hollywood icon who defies expectations and societal norms to pursue her dreams. Reids compelling storytelling and compelling characters transport readers to a bygone era, immersing them in a world of glamour, ambition, and self-discovery. Discover the Magic : Delia Owens "Where the Crawdads Sing" This mesmerizing coming-of-age story follows Kya Clark, a young woman who grows up alone in the marshes of North Carolina. Owens crafts a tale of resilience, survival, and the transformative power of nature, entrancing readers with its evocative prose and mesmerizing setting. These popular novels represent just a fraction of the literary treasures that have emerged in 2023. Whether you seek tales of romance, adventure, or personal growth, the world of literature offers an abundance of captivating stories waiting to be discovered. The novel begins with Richard Papen, a bright but troubled young man, arriving at Hampden College. Richard is immediately drawn to the group of students who call themselves the Classics Club. The club is led by Henry Winter, a brilliant and charismatic young man. Henry is obsessed with Greek mythology and philosophy, and he quickly draws Richard into his world. The other members of the Classics Club are equally as fascinating. Bunny Corcoran is a wealthy and spoiled young man who is always looking for a good time. Charles Tavis is a quiet and reserved young man who is deeply in love with Henry. Camilla Macaulay is a beautiful and intelligent young woman who is drawn to the power and danger of the Classics Club. The students are all deeply in love with Morrow, and they are willing to do anything to please him. Morrow is a complex and mysterious figure, and he seems to be manipulating the students for his own purposes. As the students become more involved with Morrow, they begin to commit increasingly dangerous acts. The Secret History is a exceptional and thrilling novel that will keep you wondering until the very end. The novel is a cautionary tale about the dangers of obsession and the power of evil.

https://thebrandexperience.com/files/Resources/Download_PDFS/The%20Practice%20Of%20Child%20Therapy%20Pergamon%20General%20Psychology%20Series.pdf

Table of Contents For Beginners Async Communication

1. Understanding the eBook For Beginners Async Communication
 - The Rise of Digital Reading For Beginners Async Communication
 - Advantages of eBooks Over Traditional Books
2. Identifying For Beginners Async Communication
 - Exploring Different Genres
 - Considering Fiction vs. Non-Fiction
 - Determining Your Reading Goals
3. Choosing the Right eBook Platform
 - Popular eBook Platforms
 - Features to Look for in an For Beginners Async Communication
 - User-Friendly Interface
4. Exploring eBook Recommendations from For Beginners Async Communication
 - Personalized Recommendations
 - For Beginners Async Communication User Reviews and Ratings
 - For Beginners Async Communication and Bestseller Lists
5. Accessing For Beginners Async Communication Free and Paid eBooks
 - For Beginners Async Communication Public Domain eBooks
 - For Beginners Async Communication eBook Subscription Services
 - For Beginners Async Communication Budget-Friendly Options
6. Navigating For Beginners Async Communication eBook Formats
 - ePub, PDF, MOBI, and More
 - For Beginners Async Communication Compatibility with Devices
 - For Beginners Async Communication Enhanced eBook Features
7. Enhancing Your Reading Experience
 - Adjustable Fonts and Text Sizes of For Beginners Async Communication
 - Highlighting and Note-Taking For Beginners Async Communication
 - Interactive Elements For Beginners Async Communication
8. Staying Engaged with For Beginners Async Communication

- Joining Online Reading Communities
 - Participating in Virtual Book Clubs
 - Following Authors and Publishers For Beginners Async Communication
9. Balancing eBooks and Physical Books For Beginners Async Communication
 - Benefits of a Digital Library
 - Creating a Diverse Reading Collection For Beginners Async Communication
 10. Overcoming Reading Challenges
 - Dealing with Digital Eye Strain
 - Minimizing Distractions
 - Managing Screen Time
 11. Cultivating a Reading Routine For Beginners Async Communication
 - Setting Reading Goals For Beginners Async Communication
 - Carving Out Dedicated Reading Time
 12. Sourcing Reliable Information of For Beginners Async Communication
 - Fact-Checking eBook Content of For Beginners Async Communication
 - Distinguishing Credible Sources
 13. Promoting Lifelong Learning
 - Utilizing eBooks for Skill Development
 - Exploring Educational eBooks
 14. Embracing eBook Trends
 - Integration of Multimedia Elements
 - Interactive and Gamified eBooks

For Beginners Async Communication Introduction

Free PDF Books and Manuals for Download: Unlocking Knowledge at Your Fingertips In today's fast-paced digital age, obtaining valuable knowledge has become easier than ever. Thanks to the internet, a vast array of books and manuals are now available for free download in PDF format. Whether you are a student, professional, or simply an avid reader, this treasure trove of downloadable resources offers a wealth of information, conveniently accessible anytime, anywhere. The advent of online libraries and platforms dedicated to sharing knowledge has revolutionized the way we consume information. No longer confined to physical libraries or bookstores, readers can now access an extensive collection of digital books and

manuals with just a few clicks. These resources, available in PDF, Microsoft Word, and PowerPoint formats, cater to a wide range of interests, including literature, technology, science, history, and much more. One notable platform where you can explore and download free For Beginners Async Communication PDF books and manuals is the internet's largest free library. Hosted online, this catalog compiles a vast assortment of documents, making it a veritable goldmine of knowledge. With its easy-to-use website interface and customizable PDF generator, this platform offers a user-friendly experience, allowing individuals to effortlessly navigate and access the information they seek. The availability of free PDF books and manuals on this platform demonstrates its commitment to democratizing education and empowering individuals with the tools needed to succeed in their chosen fields. It allows anyone, regardless of their background or financial limitations, to expand their horizons and gain insights from experts in various disciplines. One of the most significant advantages of downloading PDF books and manuals lies in their portability. Unlike physical copies, digital books can be stored and carried on a single device, such as a tablet or smartphone, saving valuable space and weight. This convenience makes it possible for readers to have their entire library at their fingertips, whether they are commuting, traveling, or simply enjoying a lazy afternoon at home. Additionally, digital files are easily searchable, enabling readers to locate specific information within seconds. With a few keystrokes, users can search for keywords, topics, or phrases, making research and finding relevant information a breeze. This efficiency saves time and effort, streamlining the learning process and allowing individuals to focus on extracting the information they need. Furthermore, the availability of free PDF books and manuals fosters a culture of continuous learning. By removing financial barriers, more people can access educational resources and pursue lifelong learning, contributing to personal growth and professional development. This democratization of knowledge promotes intellectual curiosity and empowers individuals to become lifelong learners, promoting progress and innovation in various fields. It is worth noting that while accessing free For Beginners Async Communication PDF books and manuals is convenient and cost-effective, it is vital to respect copyright laws and intellectual property rights. Platforms offering free downloads often operate within legal boundaries, ensuring that the materials they provide are either in the public domain or authorized for distribution. By adhering to copyright laws, users can enjoy the benefits of free access to knowledge while supporting the authors and publishers who make these resources available. In conclusion, the availability of For Beginners Async Communication free PDF books and manuals for download has revolutionized the way we access and consume knowledge. With just a few clicks, individuals can explore a vast collection of resources across different disciplines, all free of charge. This accessibility empowers individuals to become lifelong learners, contributing to personal growth, professional development, and the advancement of society as a whole. So why not unlock a world of knowledge today? Start exploring the vast sea of free PDF books and manuals waiting to be discovered right at your fingertips.

FAQs About For Beginners Async Communication Books

1. Where can I buy For Beginners Async Communication books? Bookstores: Physical bookstores like Barnes & Noble, Waterstones, and independent local stores. Online Retailers: Amazon, Book Depository, and various online bookstores offer a wide range of books in physical and digital formats.
2. What are the different book formats available? Hardcover: Sturdy and durable, usually more expensive. Paperback: Cheaper, lighter, and more portable than hardcovers. E-books: Digital books available for e-readers like Kindle or software like Apple Books, Kindle, and Google Play Books.
3. How do I choose a For Beginners Async Communication book to read? Genres: Consider the genre you enjoy (fiction, non-fiction, mystery, sci-fi, etc.). Recommendations: Ask friends, join book clubs, or explore online reviews and recommendations. Author: If you like a particular author, you might enjoy more of their work.
4. How do I take care of For Beginners Async Communication books? Storage: Keep them away from direct sunlight and in a dry environment. Handling: Avoid folding pages, use bookmarks, and handle them with clean hands. Cleaning: Gently dust the covers and pages occasionally.
5. Can I borrow books without buying them? Public Libraries: Local libraries offer a wide range of books for borrowing. Book Swaps: Community book exchanges or online platforms where people exchange books.
6. How can I track my reading progress or manage my book collection? Book Tracking Apps: Goodreads, LibraryThing, and Book Catalogue are popular apps for tracking your reading progress and managing book collections. Spreadsheets: You can create your own spreadsheet to track books read, ratings, and other details.
7. What are For Beginners Async Communication audiobooks, and where can I find them? Audiobooks: Audio recordings of books, perfect for listening while commuting or multitasking. Platforms: Audible, LibriVox, and Google Play Books offer a wide selection of audiobooks.
8. How do I support authors or the book industry? Buy Books: Purchase books from authors or independent bookstores. Reviews: Leave reviews on platforms like Goodreads or Amazon. Promotion: Share your favorite books on social media or recommend them to friends.
9. Are there book clubs or reading communities I can join? Local Clubs: Check for local book clubs in libraries or community centers. Online Communities: Platforms like Goodreads have virtual book clubs and discussion groups.
10. Can I read For Beginners Async Communication books for free? Public Domain Books: Many classic books are available for free as they're in the public domain. Free E-books: Some websites offer free e-books legally, like Project Gutenberg or Open Library.

Find For Beginners Async Communication :

the practice of child therapy pergamon general psychology series

the power of place; urban landscapes as public history

the power to be a phenomenology of freedom

~~the primary me getting started in selfesteem~~

~~the practical guide to voice mail~~

~~the practical guide to buying diamonds~~

the portrait of a lady

~~the power of sacred images a guide to the treasures of early christian art~~

~~the presence of stoicism in medieval thought.~~

~~the princess from bambukwe la princesse de bambukwe paperback by bell...~~

~~the pony swap~~

~~the private eyes~~

~~the principle of beauty~~

~~the prentice hall guide for college writers annotated instructors~~

~~the practical astronomer~~

For Beginners Async Communication :

Electromagnetic Field Theory - Zahn Solutions Manual Instructors manual. ELECTROMAGNETIC. FIELD THEORY a problem solving approach. Page 2. Page 3. Instructor's Manual to accompany. ELECTROMAGNETIC FIELD THEORY: A ...

Electromagnetic Field Theory Fundamentals 2nd Edition ... Access Electromagnetic Field Theory Fundamentals 2nd Edition solutions now. Our solutions are written by Chegg experts so you can be assured of the highest ... (PDF) Electromagnetic Field Theory Zahn Solutions Manual Electromagnetic Field Theory Zahn Solutions Manual. by Yusuf Zenteno. See Full PDF Download PDF. See Full PDF Download PDF. Loading... Loading Preview. Solutions Manual to Accompany Electromagnetic Field ... This book presents a new, student-oriented perspective on the study of electromagnetic fields. It has been built from the ground up using: clear ... Solutions manual to accompany Electromagnetic field ... Solutions manual to accompany Electromagnetic field theory fundamentals | WorldCat.org. Solutions manual to accompany Electromagnetic field ... Jun 26, 2023 — Solutions manual to accompany Electromagnetic field theory fundamentals ; Publication date: 1998 ; Topics: Electromagnetic fields -- Problems, ... Solutions Manual to Accompany Electromagnetic Field ... Solutions Manual to

Accompany Electromagnetic Field Theory Fundamentals. by Bhag S. Guru, Hüseyin R. Hızroglu. Paperback. See All Available Copies. Electromagnetic Field Theory Fundamentals (Complete ... Download Electromagnetic Field Theory Fundamentals (Complete Instructor Resource with Solution Manual, Solutions) book for free from Z-Library. Solutions Manual to Accompany Electromagnetic Field ... This book presents a new, student-oriented perspective on the study of electromagnetic fields. It has been built from the ground up clear explanations of ... Electromagnetic Field Theory Fundamentals Solutions View Homework Help - Electromagnetic Field Theory Fundamentals [Solutions] - Guru & Hiziroglu.pdf from PHY 2323 at University of Ottawa. Garmin nuvi 350 3.5-Inch Portable GPS Navigator ... The nüvi 350 is a portable GPS navigator, traveler's reference, and digital entertainment system, all in one. View product demo (requires Flash). A simple ... nüvi® 350 The sleek, portable nüvi 350 is a GPS navigator, traveler's reference and digital entertainment system, all in one. It is your pocket-sized personal travel ... Garmin nuvi 350 3.5-Inch Portable GPS Navigator Garmin nuvi 350 3.5-Inch Portable GPS Navigator ; Item Number. 325758153447 ; Brand. Garmin ; Type. Vehicle/Bike/Pedestrian ; Est. delivery. Tue, Nov 28 - Sat, Dec ... Garmin Nuvi 350 3.5-Inch Portable GPS Navigator ... Garmin Nuvi 350 3.5-Inch Portable GPS Navigator Personal Travel Assistant Bundle ; Quantity. 1 available ; Item Number. 335116801632 ; Bundle Description. See ... Garmin nuvi 350 3.5-Inch Portable GPS Navigator ... Garmin nuvi 350 3.5-Inch Portable GPS Navigator (Old Model), B000BKJZ9Q, 753759053642, 0753759050443, 010-00455-00, US at camelcamelcamel: Amazon price ... Garmin Nuvi 350 The Garmin Nuvi 350 is a portable GPS navigator, traveler's reference, and digital entertainment system, all in one. Combined with detailed maps, the Nuvi ... Garmin nüvi 350 3.5-Inch Portable GPS Navigator - video ... The Garmin nüvi 350 is set to revolutionize what we expect from a GPS navigation device, or from any device for that matter. Garmin nüvi 350 Review Nov 1, 2005 — Excellent GPS sensitivity and function coupled with new Travel Kit features make the nüvi 350 an excellent electronic travel companion. Garmin Nuvi 350: Insanely recommended Dec 7, 2005 — This system works vary well and was easy to setup. The GPS receiver connects to 12 satellite's and offers reasonably fast connections. It is ... Garmin Nuvi 350 GPS Units & Equipment Garmin nuvi 350 3.5-Inch Portable GPS Navigator. \$30.00 · Garmin nüvi nuvi 350 NA Automotive Portable GPS Receiver Only 3.5". \$9.00 · GARMIN NUVI 350 NA - GPS ... V-Pages Jul 24, 2017 — ALL ILLUSTRATIONS ARE SUBJECT TO CHANGE WITHOUT OBLIGATION. THE SEATS FOR EACH MODEL ARE AVAILABLE IN THE PARTS CATALOGUE. "SEATS (STZ 19)". V-Pages Jul 24, 2017 — ALL ILLUSTRATIONS ARE SUBJECT TO CHANGE WITHOUT OBLIGATION. THE SEATS FOR EACH MODEL ARE AVAILABLE IN THE PARTS CATALOGUE ... 70 309 KW. 996 TURBO ... 996TT-brochure.pdf <http://coochas.com> <http://coochas.com>. Page 2. <http://coochas.com> <http://coochas.com>. Page 3. <http://coochas.com>. Page 4 ... Porsche 911 996 (MY1998 - 2005) - Part Catalog Looking for 1998 - 2005 Porsche 911 parts codes and diagrams? Free to download, official Porsche spare parts catalogs. 996 Cup: New Parts Catalogue from :Porsche Oct 17, 2022 — Porsche just released a parts catalogue for 996 cup cars that supersedes all earlier versions. Have not seen

that noted here so far. Porsche 996 (1999-2005) The Porsche 996, introduced in 1997 (in 1999 for the United States market) ... 996 a unique and historic entry into the Porsche catalog. Much of the ... Porsche 911 996 (MY1998 - 2005) - Sales Brochures Looking for 1998-2005 Porsche 911 sales brochure? You have come to the right place. Free to download, official 996 Porsche 911 sales catalogs. Porsche | Auto Catalog Archive - Brochure pdf download Brochures of all type of Porsche cars, from the past models to the latest ones. Porsche vehicles brochure history in pdf, to visualize or download. Catalogue / Brochure Porsche 911 996 MY 1999 USA Catalogue / Brochure Porsche 911 996 MY 1999 USA ; Reference PO114089-01 ; In stock 6 Items ; Data sheet. Country of publication: USA; Language of publication ... Porsche > Porsche PET Online > Nemiga.com - Parts catalogs Parts catalogs. Spare parts catalog Porsche PET Online. Porsche.