Hey folks! This is Emrah Samdan, from Ankara. I've been into serverless for more than 4 years and an AWS Serverless Hero since October 2020. I've joined the last 4 re:Invents both in person and last year virtually. I'm very excited for the first ever hybrid re:Invent. I always had my own shortlist of great serverless sessions for previous years. This year the AWS team gave me a chance to share it with the community. You'll find the serverless sessions for different levels and use cases. I hope this guide helps you find your way through serverless re:Invent.

Senior Product Manager
Serverless Inc.
Breakout sessions
I have chosen these sessions to help serverless beginners create a path in their head, if you can’t attend re:Invent but are still looking for the way to get started with serverless. You can watch the breakout sessions in this order to increase your familiarity. You’ll be ready to start your journey with serverless at the end of this path.

**COM201**
**Productizing a serverless MVP**

Learning something holistically is my first step to learning something in detail. This session, showing you how to build an MVP with serverless AWS services, perfectly does this job for serverless. This session will tell you about what a serverless application is while keeping it simple.

Session Abstract: Finishing a minimum viable product (MVP) serverless application with its intricacies and challenges can be an exciting accomplishment. Once completed, what are the steps needed to productize your implementation? In this session, walk through the steps to productize an MVP. These can include performance-testing your AWS Lambda function, configuring your CI/CD pipeline, instrumenting observability, and most importantly, hardening your microservice to mitigate risk and help ensure least privilege.

**SVS201**
**Getting started building your first serverless application**

Now, it’s time to make a real start. In this session, you will start from scratch with a single Lambda. At the end, you’ll have a fully fledged application with data, API and code.

Session Abstract: In this session, get first-hand insight and practical steps for getting started building serverless web applications. This session walks you through the process of evolving that solution from a single AWS Lambda function into a fully-featured web application that uses Amazon API Gateway, Lambda, Amazon DynamoDB, the AWS Amplify Console, and more. Learn why serverless is a great toolset for experimenting with new ideas and projects and how the extensibility and modularity of serverless applications allow you to start small and quickly add features as your needs evolve.
According to the legend, the three Ss in serverless come from Amazon S3. Amazon S3 is the first ever serverless service in my opinion. In this session, you’ll learn how to use it and other AWS storage services in harmony with serverless.

Session Abstract: Modern applications have revolutionized application architecture by using containers for greater portability and/or building applications on serverless infrastructure to optimize compute resources. In this session, look at different storage services, including Amazon EFS, Amazon S3, and Amazon EBS, to help you determine which storage is the best fit for your modern applications.

It’s time to get serious with building applications and learn about securing the applications. Although AWS handles the scalability and management of the app, it’s still your job to secure your application. This session will be very helpful for this purpose.

Session Abstract: This session explores how to think about security from the front to the back of a typical serverless application. How do you configure AWS serverless services to provide least-privileged access while ensuring functionality? How should you think about managing IAM policies for your AWS Lambda functions? We cover all this and more, leaving you with concrete examples applicable to almost any workload.
Interactive sessions
I have chosen these sessions to help others improve their knowledge on serverless. My recommended sessions start with the entry level sessions and move to more complex topics and use cases later.

**SVS203**  
Thinking serverless: From business problem to serverless solution  
Serverless is a lot more than AWS Lambda. This session is particularly important to me as it stresses the importance of event-driven architectures and the serverless mindset.

Session Abstract: Serverless is more than just using AWS Lambda; it’s about learning to use a range of different services and techniques to solve a problem. How do you approach building a solution with a serverless mindset? In this chalk talk, learn how to tackle a business problem from a customer perspective by breaking down the needs into serverless building blocks that work well together. Learn the power of distributed system design and event-based architecture, and discover how easy it is to turn a flowchart into a model for a serverless application.

**SVS204**  
Getting started with serverless  
Workshops are the best place to learn by getting hands on, and this is the place where you’ll get hands on with AWS serverless. This is a must for anyone who wants to step into serverless on AWS.

Session Abstract: In this workshop, create your first serverless web application using AWS services like Amazon API Gateway, AWS Lambda, and Amazon DynamoDB. Learn modern development techniques to build, secure, deploy, and monitor a serverless application, and take away serverless best practices that can be applied to your own projects. Come see how quickly you can turn your ideas into working products with serverless application development!
**SVS207**  
**Adding location capability to your serverless application**  
Session Abstract: In this builders’ session, discover how to add location capabilities to your serverless application, including maps, routes, points of interest, geofences, tracking, and location-based notifications.

**ARC310**  
**Build a live streaming platform: Amazon IVS and Amazon Chime SDK**  
Session Abstract: Live video streaming can help businesses reach out to their customers without physical limitations. In this builders’ session, learn how to build your own global live streaming channel in minutes and add real-time interactive features like scalable chat and likes. Start with Amazon IVS for global streaming video and Amazon Chime SDK for chatting and walk through various services such as AWS Amplify, API Gateway, and Amazon DynamoDB to make a serverless live streaming chat application. By the end of this session, you will have built your own platform that is ready to stream globally.

**ENT309**  
**Moving up the technology stack as you modernize applications**  
Session Abstract: Modern applications are built with modular architectural patterns, serverless operational models, and automated software delivery processes. These patterns allow businesses to innovate faster while reducing risk, time to market, and total cost of ownership. In this hands-on workshop, walk through some of the patterns and learn how to pick and use the right services as part of your modernization journey.
SVS305
CI & CD workflows for serverless applications

When you are working with a team for a bigger project, you will probably need a CI/CD process to better collaborate. This session teaches you how serverless CI/CD differs from non-serverless.

Session Abstract: To get the most out of the agility afforded by serverless, it is essential to build CI/CD pipelines that help teams iterate on code and quickly release features. This chalk talk breaks down the CI/CD pipeline and looks at different technologies that can help you achieve automated deployments.

SVS306
Serverless image processing workflows at scale

I love seeing serverless in action and this is one of those sessions where serverless demonstrates its efficiency working in scale. Don’t miss this session if you want to learn about a very common real-world use case.

Session Abstract: With AWS Lambda, you can write code to process images and files without provisioning servers. But at scale, how do you manage coordinating multiple parallel processing steps, catch errors and retry failures, and keep your code modular and maintainable?

SVS401
AWS Lambda function performance tuning

AWS Lambda costs are driven by GB-seconds. You need to find the perfect equilibrium to save money while rocking in serverless. This session is my favorite for approaching this systematically, and is the perfect source of education.

Session Abstract: This chalk talk discusses what you can do to optimize your serverless applications built with AWS Lambda from the function configuration and in your function code.

API302
Rapid application development using AWS Step Functions workflows

Event-driven systems are the backbone of serverless but sometimes you need to implement a state machine to orchestrate your workflow. This session will be very educative about orchestrating serverless.

Session Abstract: In this chalk talk, learn how to use the visual designer for Step Functions Workflow Studio to quickly design serverless applications, reducing the amount of code written, tested, and maintained. This solution is designed to increase developer productivity and decrease time to market.

ARC313
Operational excellence with serverless workloads

The AWS Well-Architected Framework is great tool for following best practices. This session is a must if you want to go all in with serverless, but still want to follow the best practices.

Session Abstract: Join this chalk talk with the authors of the Serverless Application Lens for the AWS Well-Architected Framework for specific guidance on preparing, operating, and evolving your serverless workloads for operational excellence.

GPS401
Innovator serverless workshop

If you have some experience with serverless but not really with an end-to-end application, this workshop will be a great fit for you.

Session Abstract: Join this workshop to get hands-on experience with AWS and serverless applications. Learn the core concepts of building completely serverless applications and microservices using services like AWS Lambda, AWS Step Functions, Amazon API Gateway, Amazon DynamoDB, Amazon Kinesis, and Amazon EventBridge.
Other recommendations
Serverless Bootcamp

TNC206
Developing Serverless Solutions

Develop your serverless skills and get hands-on with AWS Lambda. Learn by doing with expert guidance, immersive exercises, and self-paced labs.

This one-day abridged version of the Developing Serverless Solutions course gives developers exposure to and experience with best practices for building serverless applications using AWS Lambda and other services in the AWS serverless platform. Learn about writing functions with Lambda, configuring observability, and securing serverless applications.

In this bootcamp, also learn to:

• Apply best practices to writing Lambda functions inclusive of error handling, logging, environment reuse, using layers, statelessness, idempotency, and configuring concurrency and memory
• Apply best practices for building observability and monitoring into your serverless application
• Apply security best practices to serverless applications
GameDay’s mission is for customers to learn interactively and have fun in a risk-free environment. Join us to test and grow your AWS skills under light competition and gamification.

AWS GameDays are collaborative learning exercises that test your skills as you implement AWS solutions to solve real-world problems in a gamified, risk-free environment. They’re a completely hands-on opportunity for technical professionals to explore AWS services, architecture patterns, best practices, and group cooperation. As the latest recruits at the fictitious startup Unicorn.Rentals, attendees will improve microservices to tackle problems facing the new ride-hailing service Infinidash. Prepare to get hands-on with AWS Step Functions, AWS Lambda, AWS IoT services, and more!

In addition to all the amazing breakout sessions at re:Invent, the AWS Modernization & DevOps Jam will allow you to actually use those AWS and Partner solutions that you have heard about to solve real-world scenarios in a fun and competitive event.

This jam provides an environment for you to try to improve applications and implement DevOps best practices. What are the limitations of the existing solution? How can you architect multiple AWS services together to improve it? Whether you are new to AWS or a cloud expert, join us to demonstrate your existing skills while learning new ones. Jams are structured to accommodate AWS users of all levels. Clues and AWS experts are available to help ramp up your application modernization and DevOps knowledge. A laptop is required to participate.
Keynotes
Adam Selipsky is the CEO of Amazon Web Services (AWS), the world’s most comprehensive and broadly adopted cloud platform. Having previously led AWS Marketing, Sales, and Support for 11 years, from 2005–2016, Selipsky helped launch and grow AWS from a startup into a multi-billion dollar business. Prior to rejoining AWS in 2021, Selipsky was most recently President and CEO of Tableau Software. He led Tableau through its acquisition by Salesforce, in what was the third-largest software industry acquisition at the time. Selipsky has also held various leadership roles at RealNetworks, and before that, was a Principal at strategy consulting firm Mercer Management Consulting. He has an AB in government from Harvard University and an MBA from Harvard Business School.
Peter DeSantis Keynote

Peter DeSantis is the Senior Vice President of AWS Global Infrastructure and Customer Support. In this role, he leads the AWS teams responsible for designing the data centers, servers, and network that underpin our AWS services and for deploying and operating this infrastructure worldwide as well as for the customer-facing organizations providing support for our AWS products.

Live stream sponsored by:

Machine Learning Keynote

Swami Sivasubramanian is Vice President at AWS in charge of all Amazon AI and machine learning services. His team’s mission is “to put machine learning capabilities in the hands of every developer and data scientist.” Swami and the AWS AI and ML organization work on all aspects of machine learning, from ML frameworks (TensorFlow, Apache MXNet, and PyTorch) and infrastructure, to Amazon SageMaker (an end-to-end service for building, training, and deploying ML models in the cloud and at the edge), and finally AI services that make it easier for app developers to incorporate ML into their apps with no ML experience required.

Global Partner Summit Keynote

Join us for the Global Partner Summit keynote, presented by Doug Yeum, Head of AWS Partner Organization, Sandy Carter, Vice President, Worldwide Public Sector Partners and Programs, and Stephen Orban, General Manager of AWS Marketplace and Control Services. You’ll learn about cloud-powered innovation and the opportunity it creates for AWS Partners, as well as how AWS Partners use the AWS Cloud to build innovative solutions and services, differentiate their businesses, and enable customers in virtually every industry to transform their businesses.

Live stream sponsored by:
Leadership sessions
Leadership sessions

LaDavia Drane
Director, Inclusion, Diversity & Equity

Francesca Vasquez
Vice President, Technology

*Sessions are subject to change
Leadership sessions*

AWS Marketplace
Stephen Orban
General Manager, AWS Marketplace

AWS Public Sector
Max Peterson
Vice President, Worldwide Public Sector

AWS Public Sector Partners
Sandy Carter
Vice President, Worldwide Public Sector Partners and Programs

AWS Storage
Mai-Lan Tomsen-Bukovec
Vice President, Worldwide Public Sector Partners and Programs

AI/ML
Bratin Saha
Vice President, Machine Learning

*Sessions are subject to change
Leadership sessions*

- **Analytics**
  - Rahul Pathak
    - Vice President, Analytics

- **Architecture**
  - Brian Taptich
    - Vice President, AWS Worldwide Specialist Organization

- **Business Applications**
  - Peter Hill
    - Vice President, Business Applications

- **Cloud Operations**
  - Bill Vass
    - Vice President, Engineering – Storage, Automation, Streaming & Management

- **Compute**
  - David Brown
    - Vice President, Amazon EC2

*Sessions are subject to change*
Leadership sessions

Deepak Singh
Vice President, Compute Services

Jeff Carter
Vice President, Relational Databases

Ken Exner
Director, AWS Developer Tools

Bill Vass
Vice President, Engineering – Storage, Automation, Streaming & Management

Todd Weatherby
Vice President, Professional Services

*Sessions are subject to change
Leadership sessions

IoT
Michael MacKenzie
General Manager, AWS IoT

Networking & Content Delivery
David Brown
Vice President, Amazon EC2

Security, Compliance, and Identity
Stephen Schmidt
Vice President and Chief Information Security Officer

Serverless
David Richardson
Vice President, Serverless

Training & Certification
Maureen Lonergan
Director of AWS Training and Certification

*Sessions are subject to change
Learn
Choose the learning methods that work for you

**Breakout sessions**
Available from intermediate (200) through expert levels (400), so you can grow your skills, no matter where you are in your career. Select from any track, level, or available session type to tailor your re:Invent experience.

**Workshops**
Workshops are two-hour hands-on sessions where you work in teams to solve problems using AWS services. Workshops organize attendees into small groups and provide scenarios to encourage interaction, giving you the opportunity to learn from and teach each other.

**Chalk talks**
Chalk talks are a highly interactive content format with a small audience. Each begins with a short lecture (10–15 minutes) delivered by an AWS expert, followed by a 45- or 50-minute Q&A session with the audience.

**Builders’ sessions**
These are 60-minute small group sessions with up to six attendees per table, and one AWS expert, who is there to answer questions and provide guidance. It’s just you, your laptop, and the AWS expert.
Choose the learning methods that work for you

Training and Certification
Learn directly from AWS experts and get practical experience with real-world cloud scenarios. Skill up fast with a bootcamp, show your expertise by earning an AWS Certification, and practice your craft with one of our labs.

AWS DeepRacer
Developers of all skill levels can compete in virtual races during re:Invent for a chance to win prizes and glory! Tune in to AWS DeepRacer TV throughout re:Invent to catch the championship action.

Jams and GameDays
Test your skills in implementing AWS solutions by solving real-world problems in a gamified, risk-free environment. Take part in collaborative and interactive learning exercises—and win prizes!

Expo
Learn from AWS experts and partners. The Expo at The Venetian will be host to AWS Village, AWS Partner Network, AWS Marketplace, Builders’ Fair, Developer Lounge, a demo theater, Jam Lounge, Startup Central, and sponsor booths.
Midnight Madness

Once again this year, we will be hosting an AWS-style pep rally to kick off the week and welcome our most dedicated fans. Midnight Madness provides a sneak peek into re:Invent, complete with the first product launch of re:Invent 2021.

Quirky

Experience Amazon's unique culture at one (or more!) of our Quirky events. Whether it's board games, bingo, or a sneak peek of one of your favorite Amazon TV shows, we've got something for everyone.

re:Play party

For our 10th annual re:Play party, we have an amazing lineup, featuring all the classic re:Play activities like dodgeball and office chair grand prix, and we have a very special musical headliner. Stay tuned for more information!

Restaurant receptions

Join the conversation at our vibrant restaurant receptions. Meet people from across the tech world and connect on topics of interest to you at a range of wonderful venues.
Reserved seating
Navigate to the session catalog

After logging in to the event portal, click on the side nav and click “Sessions”.
When viewing the session catalog, there is a set of filters available on the left sidebar of the sessions catalog that shows a variety of filters you can use while browsing. Filters include: price, day of the week, difficulty level, session type, topic, AWS service, and industry.
Using catalog search

At the top of the session catalog, there is a search bar where you can enter freeform text to search the full catalog. The search box searches through all of the displayed text fields of a session, including session ID, title, abstract, and level.
Favoriting and un-favoriting a session

When viewing the session catalog, any session shown in the results has a star icon on it. Clicking that star will mark it as a favorite. To un-favorite it, simply click the star again.
Reserving a session

For events with reserved seating, when a session has available seats, the button on the session card will say “Reserve seat”.

For sessions with a price greater than zero, the button will say “Buy for <price>”. Clicking purchase will open up the purchase form where you can complete your transaction. Once the transaction is complete, that session will show on your reservations list.
Reserved Seating Walkthrough

Waitlisting a session

When a session has no seats available, because the capacity has already been met, then the button will say “Join waitlist”. If you join a waitlist for a session, and a seat becomes available in that session, you may automatically be placed in that session and we will notify you via email.
Along the top of the catalog page, there are 3 tabs: 1) All sessions, 2) My favorites, and 3) My reservations. Clicking on “My favorites” will show you a list of only sessions you have favorited. Clicking on “My reservations” will show you a list of items you have reserved or waitlisted.
Cancelling a reservation or waitlist

When viewing a session, in any tab, if you have reserved or waitlisted, you can cancel that action by simply clicking the button again. It will show a dropdown that says “Cancel reservation” or “Leave waitlist”.

Automating content moderation to improve digital safety

The volume of user-generated content and third-party content has been exploding in social media, online forums, and websites. As a result, companies need to find a way to review and moderate audio, image, video, and text content at scale for potential violations. This chalk talk provides hands-on experience to implement a multimodal AI content moderation solution using a combination of machine learning for speech (Amazon Transcribe), and text (Amazon Comprehend).

Session type: Chalk Talk
Topics: Artificial Intelligence and Machine Learning
Session level: 300 - Advanced

BOA201

Amazon S3 and Amazon EC2 are turning 15 this year, and Jeff Barr, VP and Chief Evangelist at AWS, will take you through their journey from virtually nothing in 1999 to where they are today. Additionally, he will discuss how the developer experience has evolved over the years, and how customers keep the community and shares lessons on how to best build on AWS. Last but not least, go back in time and witness the evolution of our infrastructure and workloads.

Session type: Breakout Session
Topics: None
Session level: 200 - Intermediate
RESERVED SEATING WALKTHROUGH

Viewing your calendar

In the main nav bar on the left of the session catalog, you will see a link that says “My calendar”.
RESERVED SEATING WALKTHROUGH

Viewing your calendar

If you navigate to the calendar, you will see all of your favorites, reserved seats, and waitlisted seats on the corresponding days that those sessions are scheduled.
Make a plan
Breakout sessions are lecture-style and one hour long. Sessions are delivered by AWS experts, customers, and partners, and they typically include 10–15 minutes at the end for Q&A.

Chalk talks are one hour long and contain expert-level content presented by AWS experts. The goal is to foster a technical discussion around real-world architecture challenges.

Workshops organize attendees into small groups and provide scenarios to encourage interaction, giving you the opportunity to learn from and teach each other.

These are 60-minute small group sessions with up to six attendees per table, and one AWS expert, who is there to answer questions and provide guidance.

PRO TIP:
Breakout sessions should make up the bulk of your plan. You can find customers directly speaking about their real-world experiences of using AWS products and services in sessions!
Building your agenda

PRO TIPS:

• Make sure to watch the leadership sessions that are most relevant to your areas of interest to get the most strategic updates.

• Be sure to not miss out on all the keynotes, as that’s where you’ll catch the biggest AWS launches.

• re:Invent always tries to feature many customers directly speaking about their real-world experiences of using AWS products and services. You’ll find them in many breakout sessions, as well as keynotes.

• Think about topics that are currently mission critical to your team, and topics you’re interested in learning more about.

• Breakout sessions will be available to watch virtually, even if you are registered for in-person re:Invent.

• Make an extensive list of sessions to watch! Favorite lots of sessions so when reserved seating goes live, you have lots of options.
Got free time on your schedule?

There are many learning opportunities across the re:Invent campus in Las Vegas that require no reservation. Drop by the Expo, visit a content hub, or practice your craft in one of our labs.

**Expo**
Learn from AWS experts and partners. The Expo at The Venetian will be host to AWS Village, AWS Partner Network, AWS Marketplace, Builders’ Fair, Developer Lounge, a demo theater, Jam Lounge, Startup Central, and sponsor booths. Come by and see all that the Expo has to offer!

**Content hubs**
Breakout session repeats will take place all week in all re:Invent venues, along with overflow sessions in our content hubs (centralized overflow rooms in every venue). We will also stream live content to the content hubs as the sessions fill up.

**Labs**
Practice your craft in a live AWS sandbox environment. Try any of our 100+ self-paced labs on your own, or reserve time with an AWS expert who can coach and guide you. Whether you’re just starting out or honing your technical skills, learn by doing with labs.
Your re:Invent checklist

- Register for re:Invent / Book your hotel / Book your travel reservations / Upload your badge photo
- If attending in person, review the health measures in place for this year’s re:Invent
- Visit the re:Invent website to stay up to date on announcements
- Add all five keynotes to your agenda
  Pro Tip: This is where you'll catch the biggest AWS launches
- Add your favorite leadership sessions to your agenda
- Get ready for reserved seating: favorite the learning sessions of interest to you
- Familiarize yourself with sponsors in the Expo, along with the Expo map
- If you’re attending with a team, connect with your colleagues to plan how to conquer the many hours of content
  Pro Tip: Don’t forget to find time to reconvene with your team and debrief on everyone’s learnings
- Check out the Play activities and add them to your agenda
- Watch all the How to re:Invent videos to prepare for the week
- Follow Amazon Web Services on Instagram, Facebook, LinkedIn, and Twitter
Useful resources
Everything you need to know about how to re:Invent. Insider tips, planning advice, and interviews with re:Invent experts. Stay tuned for more episodes on the road to re:Invent!

The health and safety of our customers, partners, and employees remains our top priority. Review our updated COVID-19 vaccination requirements for attending re:Invent in Las Vegas.

Get all the info you need on topics such as health and safety, registration, accessibility, and much more.
Thank you!