

Explore and Build Simple Node.js & Python apps using Cloud Functions

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Get Started Here: ibm.biz/serverlessIntro

Survey: ibm.biz/serverlessSurvey

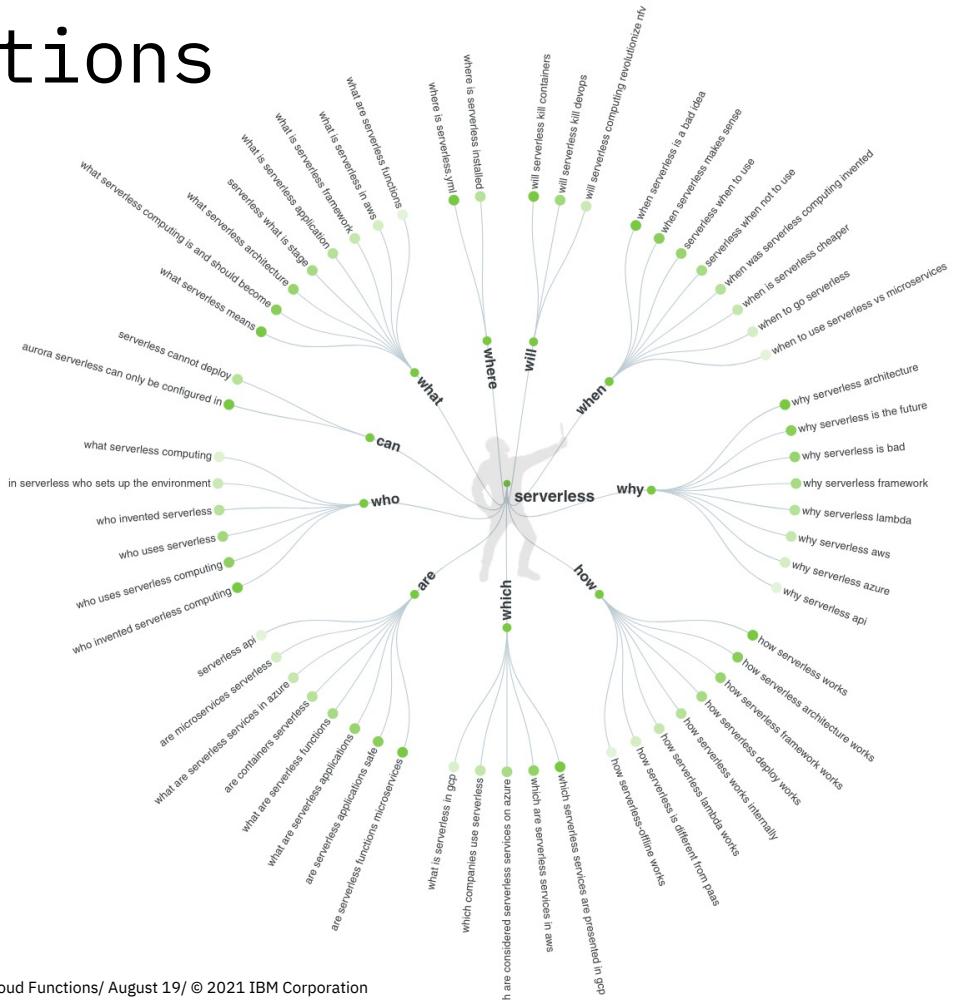
Q&A: ibm.biz/serverlessQA



Agenda

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Your Questions



Developers Main Challenges

Developers are required to understand ops thus:

- Worrying about hosting
- Deploying
- Maintaining applications
- Spend less time coding

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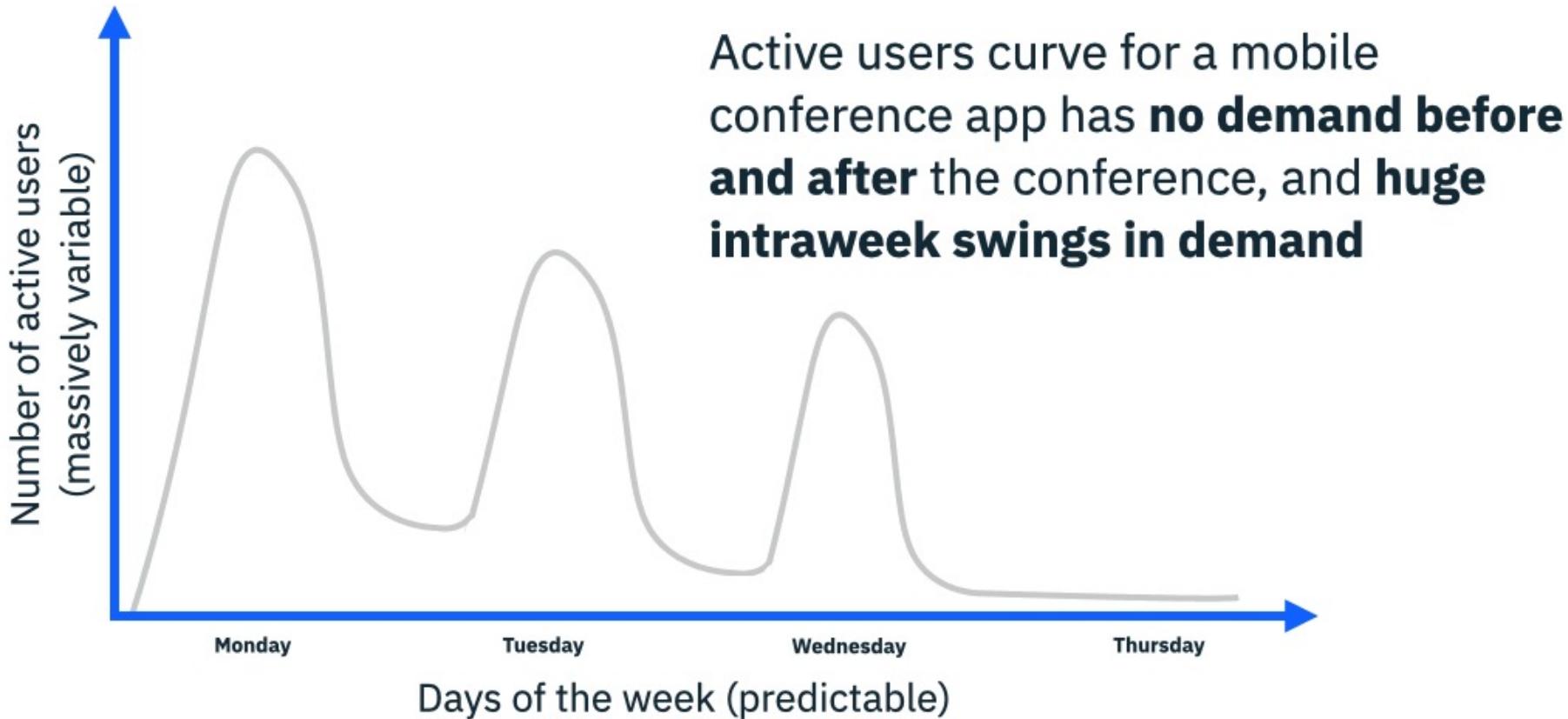


Why serverless? Mobile video game popularity is hard to predict



Active users curve for a new mobile game has a ***predictable shape***, but an ***unpredictable volume***

Why serverless? Conference mobile apps have huge variations in demand



Serverless Computing

Get Started Here:
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- Does not mean no servers!
- Auto Scalable (Servers are managed by cloud provider)
- Highly available
- Faster time to market
- Pricing is calculated based on Pay-as-you-go (Pay for execution only)
- Polyglot environment (supports multiple languages)



https://www.flaticon.com/free-icon/cloud-computing_291553

Serverless handles OPS

Serverless takes out ops and provides:

- Scaling
- Low latency
- High availability
- Multi-region
- Monitoring
- Logging
- Security

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Serverless Use Cases

Here are some of use cases for serverless but not limited to:

- Batch jobs
- Mobile backends (Rest APIs)
- Chat bots
- IoT Sensors
- Multimedia processing
- Database changes

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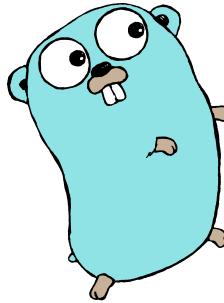
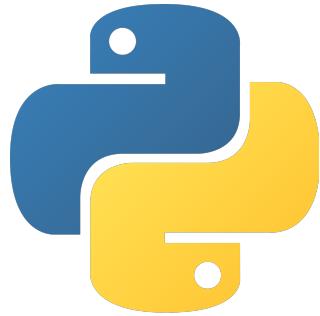


<https://mydata2018.org/programme/cases/>

IBM Cloud Functions

- FaaS programming platform
- Accelerate development
- Code reuse, simplifying migration
- Leverage the benefits of Watson services
- First 5M executions per month are FREE!
Cost of \$0.000017 GB-s applies after.
- Some supported languages are: Node.js, Python, Ruby, PHP, Swift, and more!

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Client: SiteSpirit

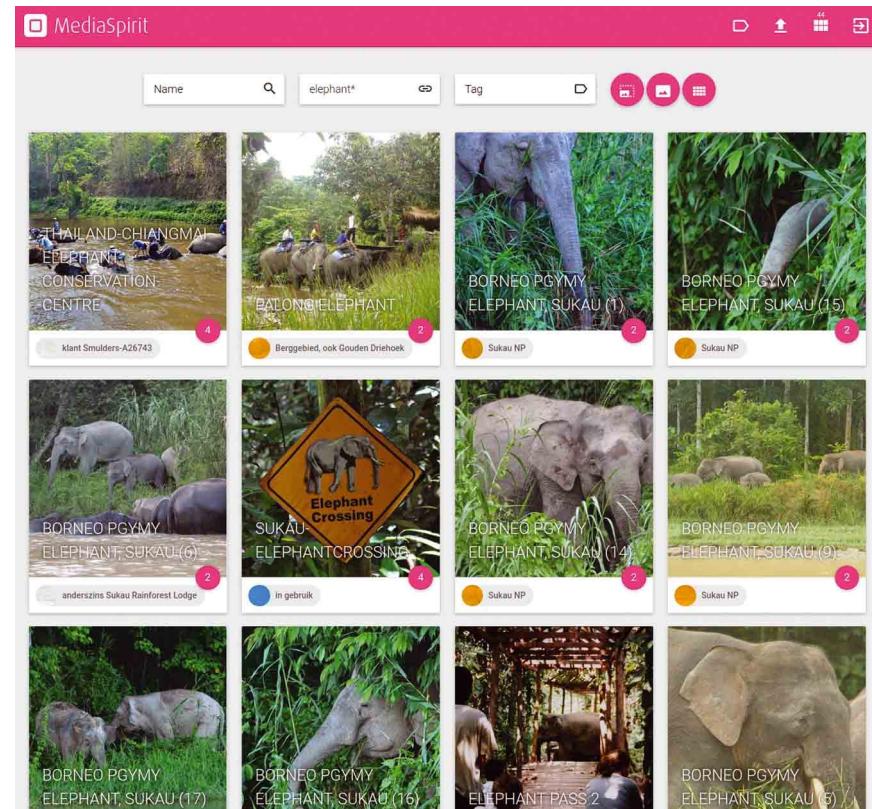
Help clients create picture-perfect marketing material with a serverless media-library-as-a-service

Business Challenge: SiteSpirit's clients were spending hours finding and editing photos to get the perfect images for their marketing materials. How could SiteSpirit help them move from concept to production faster?

Transformation: SiteSpirit's developers harnessed IBM® cloud services to build MediaSpirit, a cloud-based media-library-as-a-service that lets clients manage, find and use the right photos quickly and easily.

Results:

- Replaced disorganized image folders with a clean, user-friendly online
- 10X faster image search capabilities
- 90% cost reduction with a serverless architecture



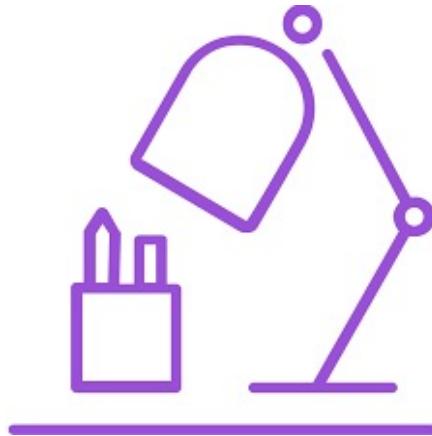
<https://www.ibm.com/case-studies/sitespirit>

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Workshop

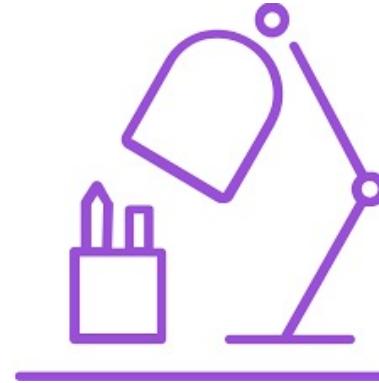
Get Started Here:
ibm.biz/serverlessIntro

- Introduction to cloud functions and how they work
- Build a basic serverless hello world Node.js function
- Learn how to work with parameters
- Build a serverless Python function connected to Cloudant DB
- Configure a trigger and connect it to the Python function



Hands On

- Sign up/Log in to your IBM Cloud Account:
<http://ibm.biz/serverlessIntro>
- Follow along for the hands-on:
<http://ibm.biz/serverlessLab>



Limitations

- Max Code size: 48 MB
- Memory: 256 MB – 2 GB
- Max timeout: 10 Minutes
- See more

here: <https://cloud.ibm.com/docs/openwhisk?topic=openwhisk-limits>

Get Started Here:
ibm.biz/serverlessIntro



Code Engine

- Want to remove artificial limits & benefit from container infrastructure?
- Check out code engine!
- Get started: [Code Engine - The New Serverless Way to Deploy your Containerised App](#)

IBM Cloud

Search for a resource or offering

Catalog Docs Support Manage Account name... Actions

Code Engine / Projects / my-project Active test environment

Overview Applications Jobs Image builds Registry access Secrets and configmaps

Summary Applications 11 Jobs 2 Image Builds 12 Registry Access 2 Secrets 1 Configmaps 3

Recently updated my-application Application my-job Job test-job Job

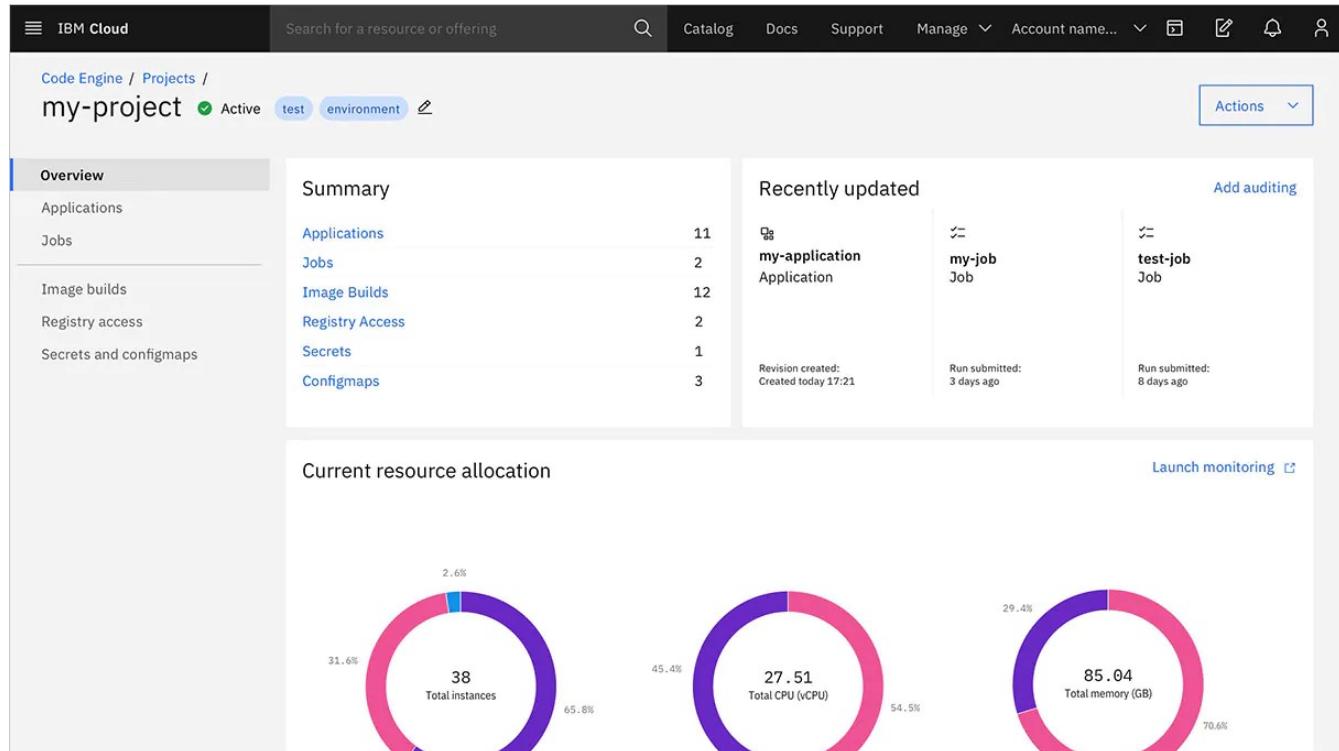
Add auditing Revision created: Created today 17:21 Run submitted: 3 days ago Run submitted: 8 days ago

Current resource allocation Launch monitoring

38 Total instances 2.6% 31.6% 65.8%

27.51 Total CPU (vCPU) 45.4% 54.5%

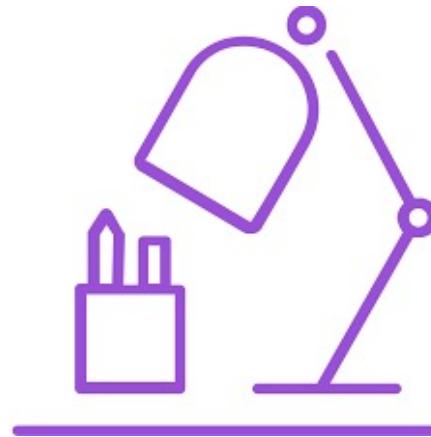
85.04 Total memory (GB) 29.4% 70.6%



Summary

Get Started Here:
ibm.biz/serverlessIntro

- Built a “Hello World” node.js serverless app
- Saw how to add parameters in serverless apps
- Built a serverless Python app to write data to Cloudant DB
- Added a trigger to the Python app to run the function every minute



Useful Links

Learn - develop - connect

Get Started Here (<http://ibm.biz/serverlessIntro>)

Hands-On Lab (<http://ibm.biz/serverlessLab>)

Cloud Function Limits (<https://cloud.ibm.com/docs/openwhisk?topic=openwhisk-limits>)

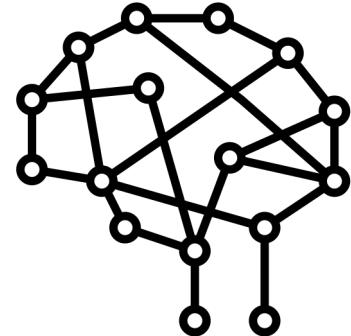
Cloud Function Pricing (<https://cloud.ibm.com/functions/learn/pricing>)

IBM Developer (<https://developer.ibm.com/>)

Meetup (<https://www.meetup.com/IBM-Cloud-MEA/>)

Your Path to Deep Learning

Learn about the fundamentals of deep learning and create your own models using frameworks such as TensorFlow & Keras!



23rd August – 6 PM-8 PM (GST)

Sentiment Analysis using Logistic Regression

<https://www.crowdcast.io/e/ypdl-1>

25th August – 6 PM-8 PM (GST)

Identify Handwritten Digits using CNN with TensorFlow

<https://www.crowdcast.io/e/ypdl-2>

30th August – 6 PM-8 PM (GST)

Language Processing using RNN with TensorFlow

<https://www.crowdcast.io/e/ypdl-3>

1st September– 6 PM-8 PM (GST)

Build a movie recommendation engine with TensorFlow

<https://www.crowdcast.io/e/ypdl-4>

Thank You .

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