



freeknowledgeemission-list@meetup.com



Cloud9 from AWS

<https://aws.amazon.com/cloud9/>



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AWS has supplied a developer IDE and environment that is simple to set-up, is close to free, and avoids all the complexity of installing IDE and versions of various software.

AWS Cloud9 comes with tutorials to use and set-up.

AWS Cloud9 uses IAM to create users of your Cloud9 instances allowing for multiple developers to use the same set-up.

AWS Cloud9 grants a Unix server that you have “sudo” to add items like the “Boost” C library.

Usually Cloud9 is set to shutdown after 30 mins of activity saving money for the “free” version.

As this is an AWS standard instance the underlying compute can be increased or the “hardware” changed. Making it possible to develop of small systems and then change to larger or special “hardware” as needed.



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aws

Services

Resource Groups

Find a service by name or filter

Recently visited services

Cloud9

Cost Explorer

All services

Compute

EC2

Lightsail

Elastic Container Service

Lambda

Batch

Elastic Beanstalk

Storage

S3

EFS

Glacier

Storage Gateway

aws

Services

Resource Groups

wild @ 6901-5511-5

Environment type [Info](#)

Choose between creating a new EC2 instance for your new environment or connecting directly to your server over SSH.

☒ Create a new instance for environment (EC2)

Launch a new instance in this region to run your new environment.

☐ Connect and run in remote server (SSH)

Display instructions to connect remotely over SSH and run your new environment.

Instance type

☒ t2.micro (1 GiB RAM + 1 vCPU)

Free-tier eligible. Ideal for educational users and exploration.

☐ t2.small (2 GiB RAM + 1 vCPU)

Recommended for small-sized web projects.

☐ m4.large (8 GiB RAM + 2 vCPU)

Recommended for production and general-purpose development.

☐ Other instance type

Select an instance type.

t2.nano

Cost-saving setting

Choose a predetermined amount of time to auto-hibernate your environment after an hour of no activity to maximize savings.

After 30 minutes (default)

Environment type

EC2

Instance type

t2.micro

Subnet

subnet-7c6aff19

Cost-saving settings

After 30 minutes (default)

IAM role

AWSServiceRoleForAWSCloud9 (generated)

We recommend the following best practices for using your AWS Cloud9 environment

- Use **source control and backup** your environment frequently. AWS Cloud9 does not perform automatic backups.
- Perform regular **updates of software** on your environment. AWS Cloud9 does not perform automatic updates on your behalf.
- Turn on AWS CloudTrail** in your AWS account to track activity in your environment. [Learn more](#)
- Only share your environment with **trusted users**. Sharing your environment may put your AWS access credentials at risk. [Learn more](#)

Cancel

Previous step

Create environment



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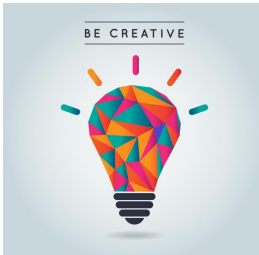
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AWS Cloud9 File Edit Find View Goto Run Tools Window Support Preview Run Share

Environment
More AWS
README.md

Welcome
Developer Tools

AWS Cloud9

Welcome to your development environment

AWS Cloud9 allows you to write, run, and debug your code with just a browser. You can [tour the IDE](#), write code for [AWS Lambda and Amazon API Gateway](#), [share your IDE](#) with others in real time, and much more.

AWS Cloud9 for AWS Lambda

AWS Lambda is a compute service that lets you run code without provisioning or managing servers. AWS Lambda executes your code only when needed and scales automatically, from a few requests per day to thousands per second.

Getting started

- [Create File](#)
- [Open File...](#)
- [Upload Files...](#)
- [Clone Git Repository](#)

bash - "ip-172-31" Immediate
wild:~/environment \$

Collaborate
Outline
AWS Resources
Debugger



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It is “free” but I pay about \$1.80 a month for expenses I cannot work out. This includes 6 cents for network traffic. I assume I am cover the cost of the disk storage which is not “free.”

I installed “Boost” and use it for C++ programming.

Ruby, Python all appear to be installed. All the AWS “thingees” are available.

Appears to be Redhat Linux and they patch it for you.

No “projects” in the IDE. Sort of very light Eclipse. Some limited IDE features like variable tracking and various helps. Not as nice at PyCharm but better than many.

Must use IAM and create “users” to use Cloud9. It is “unsafe” to use your “root” account. You can then manage the accounts and use the URL to access you IDE set-ups without risk to hacks to your home “root” AWS account. You can have strong or not security.



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The screenshot displays the AWS IAM console interface. At the top, the AWS logo and navigation bar are visible. The main content area is titled 'Welcome to Identity and Access Management'. It includes a search bar, a sidebar with navigation links, and a main content area with sections for IAM users sign-in link, IAM Resources, and Security Status. A video player for 'Introduction to AWS IAM' is visible on the right.

Search IAM

Account ID or alias
number here

IAM user name
wild

Password

Sign In

[Sign-in using root account credentials](#)

Dashboard

- Groups
- Users
- Roles
- Policies
- Identity providers
- Account settings
- Credential report

Encryption keys

Welcome to Identity and Access Management

IAM users sign-in link:
[signin.aws.amazon.com/console](#) | [Customize](#)

IAM Resources

Users: 3 Roles: 2
Groups: 1 Identity Providers: 0
Customer Managed Policies: 0

Security Status

- Delete your root access keys
- Activate MFA on your root account
- Create individual IAM users
- Use groups to assign permissions
- Apply an IAM password policy

Feature Spotlight

Introduction to AWS IAM

aws Services Resource Groups

Search IAM

Add user **Delete user**

Find users by username or access key

<input type="checkbox"/>	User name	Groups
<input type="checkbox"/>	admin	Cloud9Group
<input type="checkbox"/>	corwin	Cloud9Group
<input type="checkbox"/>	wild	Cloud9Group



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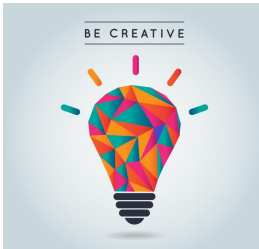
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AWS Cloud9 File Edit Find View Goto Run Tools Window Support Preview Run

Environment
my-demo-environment
boost
boost_61
debug_level.xml
debug_settings.xml
debug_settings_out.xml
Hello.cpp.o
hello.rb
mcp.cpp
mcp.h
mcpmain.cpp
mcpmain.cpp.o
README.md
some.xml
xml.cpp
xml.cpp.o

Commands
Navigate

mcpmain.cpp x mcp.h x mcp.c x some. x xml.cpp x debug x debug x

```
74 {  
75     std::string name = ourparams.get("mcp.more");  
76     std::cout << "Success: " << name << " " << std::endl;  
77 }  
78 catch (std::exception &e)  
79 {  
80     std::cout << "Error: " << e.what() << std::endl;  
81 }  
82  
83 // save change  
84 try  
85 {  
86     ourparams.save();  
87     std::cout << "Saved!" << std::endl;  
88 }  
89 catch (std::exception &e)  
90 {  
91     std::cout << "Error: " << e.what() << std::endl;  
92 }  
93  
94 // Leave politely
```

[P] https://79€ x xml.cpp - Idle x mcpmain.cpp - S x mcp.cpp - Idle x mcp.h - Stop x

Run Command: mcpmain.cpp

Running /home/ec2-user/environment/mcpmain.cpp
Master Control Program
Local Time: Sat Mar 24 16:23:25 2018

Read in MCP controls
Success: Master Control Program 0.0.1
Success: This is a test
Saved!

Process exited with code: 0



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I find it nice to leave a development server in AWS that I can bring up anytime by just going to it on the Internet.

The IDE is good enough.

The access to Linux and “sudo” allows me to make those simple changes I need.

The about \$2.00 a month AWS charges is just funny.

Or in other words, it is better than “free.”



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Questions?

