

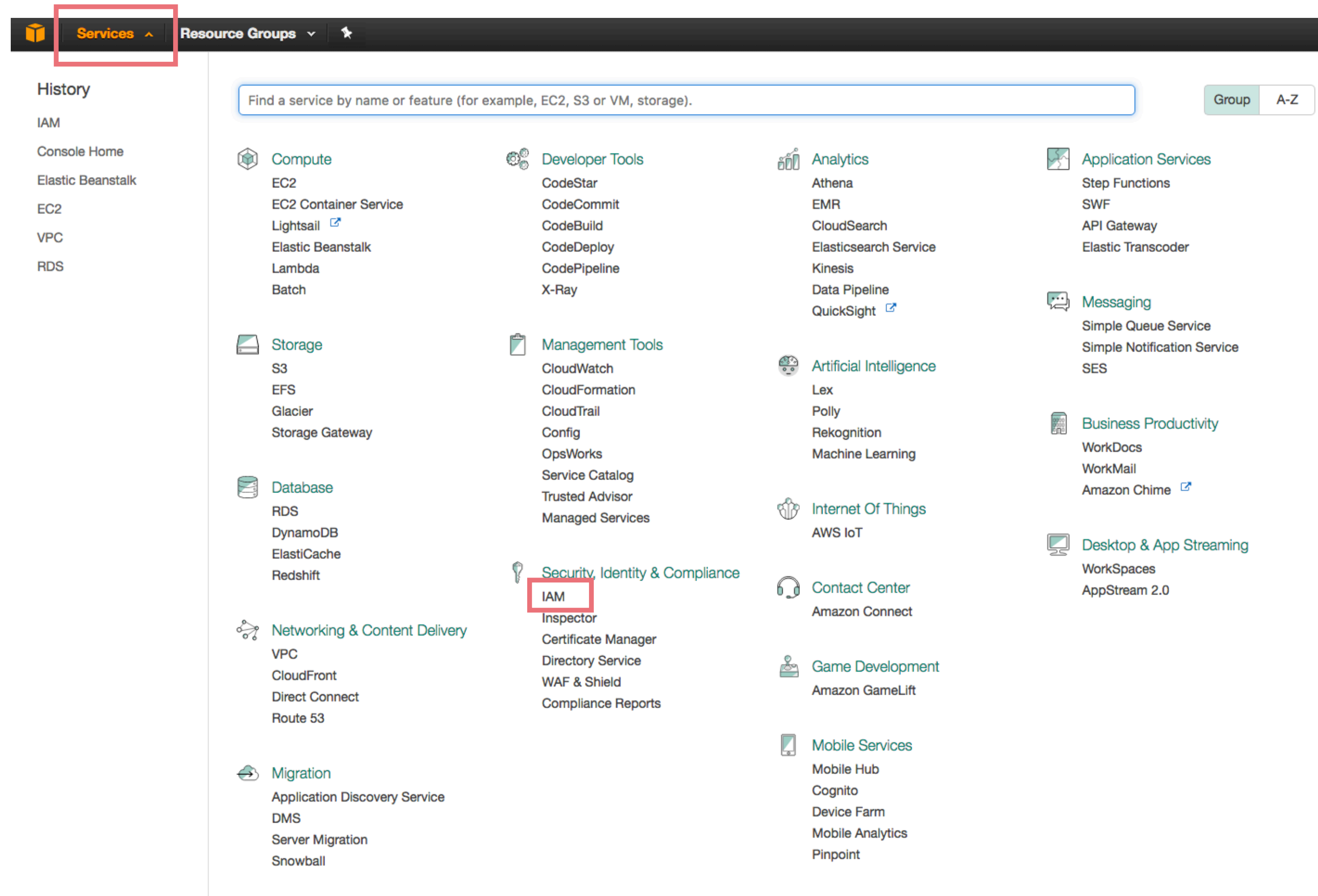
# Lab 08

## Deploy your app to AWS

Datalab

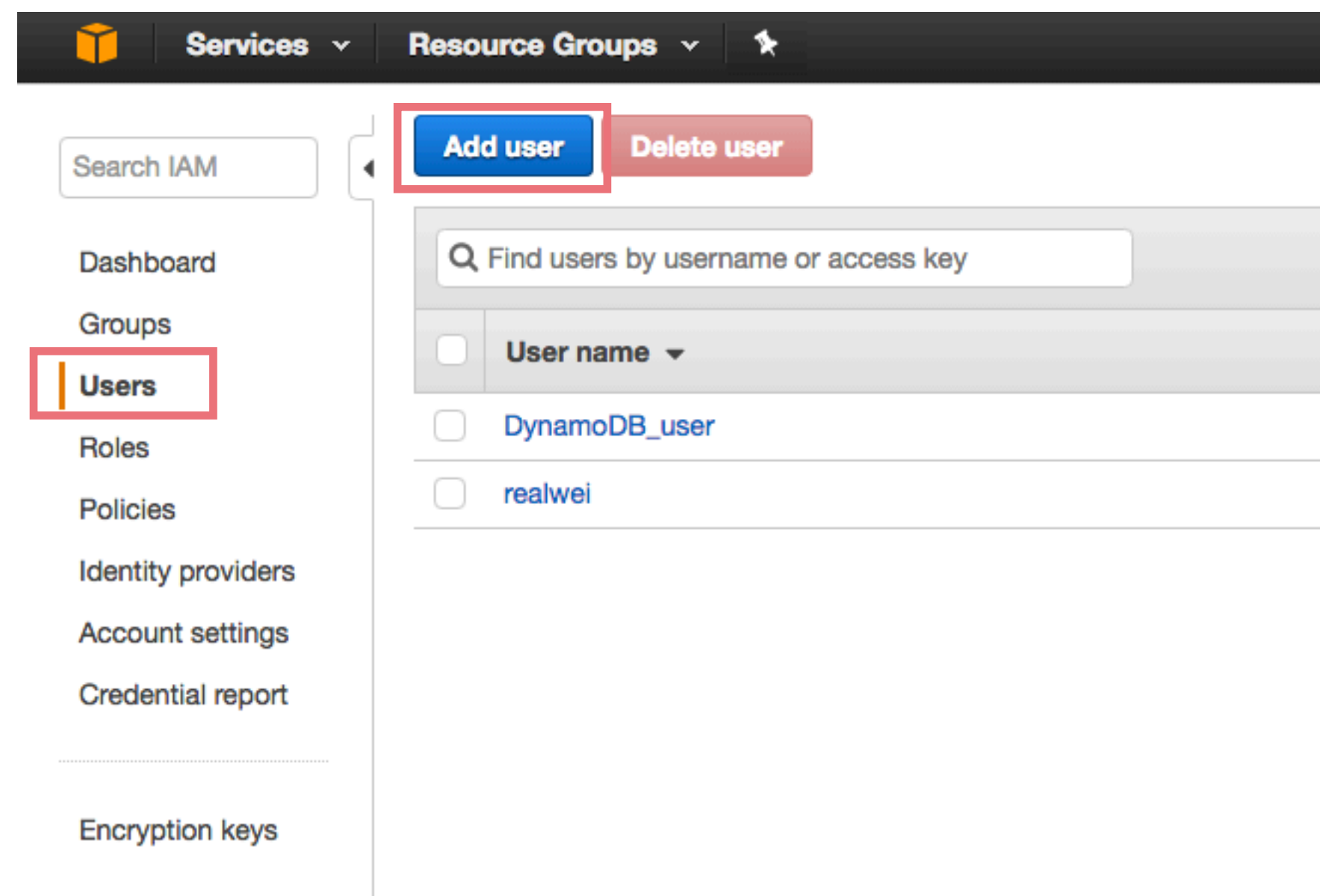
# IAM

- Services -> IAM



# IAM

- For security reason, we have to create new user with less permissions.
- Users -> Add user



# IAM

- Check "Programmatic access" and "AWS Management Console access"
- Uncheck "Require password reset" if you want to keep the custom password

The screenshot shows the AWS IAM 'Add user' page. At the top, there's a navigation bar with 'Services' and 'Resource Groups' dropdowns. The main heading is 'Add user'. Below it, the section 'Set user details' has a text input for 'User name\*' containing 'weathermood' and a link 'Add another user'. The next section, 'Select AWS access type', includes a description and a link 'Learn more'. Under 'Access type\*', two options are checked and highlighted with red boxes: 'Programmatic access' (with a description about access key ID and secret access key) and 'AWS Management Console access' (with a description about enabling a password). For 'Console password\*', 'Custom password' is selected. A password input field shows masked characters, and there is a 'Show password' checkbox. At the bottom, 'Require password reset' is unchecked and highlighted with a red box, with a description stating the user must create a new password at next sign-in and will get the 'IAMUserChangePassword' policy. A footer note indicates '\* Required'.

Services ▾ Resource Groups ▾ ↗

## Add user

### Set user details

You can add multiple users at once with the same access type and permissions. [Learn more](#)

User name\*

[+ Add another user](#)

### Select AWS access type

Select how these users will access AWS. Access keys and autogenerated passwords are provided in the last step. [Learn more](#)

Access type\* ☒ **Programmatic access**  
Enables an **access key ID** and **secret access key** for the AWS API, CLI, SDK, and other development tools.

☒ **AWS Management Console access**  
Enables a **password** that allows users to sign-in to the AWS Management Console.

Console password\* ☐ Autogenerated password  
☒ Custom password

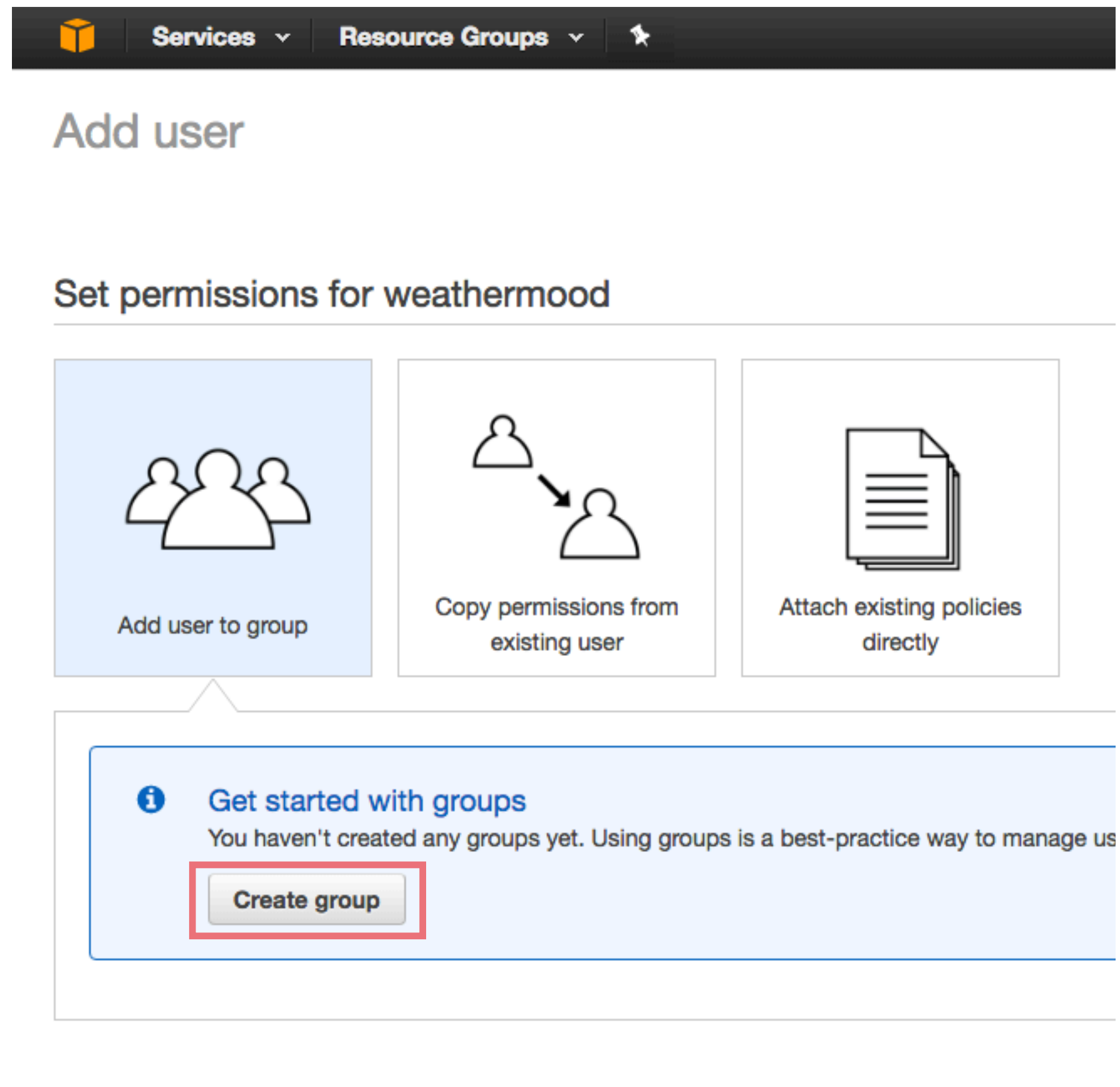
☐ Show password

**Require password reset** ☐ User must create a new password at next sign-in  
Users automatically get the [IAMUserChangePassword](#) policy to allow them to change their own password.

\* Required

# IAM

- Create group



# IAM

- Search "AWSElasticBeanstalkFullAccess"
- You can modify permissions in IAM -> Groups afterward


Create group ×

Create a group and select the policies to be attached to the group. Using groups is a best-practice way to manage users' permissions by job functions, AWS service access, or your custom permissions. [Learn more](#)

Group name

Filter: Policy type ▾

Showing 1 result

	Policy name ▾	Type	Attachments ▾	Description
<input checked="" type="checkbox"/>	 AWSElasticBeanstalkFullAccess	AWS managed	2	Provides full access to AWS Elastic Beanstalk and underlying services that it requires such as S3 and EC2.

Cancel

Create group



# IAM

- Next: Review -> Create user

Services

Resource Groups

Tseng Cheng Wei

Global

Support

Add user to group

Copy permissions from existing user

Attach existing policies directly

Add user to an existing group or create a new one. Using groups is a best-practice way to manage user's permissions by job functions. [Learn more](#)

Create group

Refresh

Q Search

Showing 1 result

Group	Attached policies
<input checked="" type="checkbox"/> weathermood	AWSElasticBeanstalkFullAccess

Cancel

Previous

Next: Review



Services

Resource Groups

Tseng Cheng Wei

Global

Support

Add user

1 Details

2 Permissions

3 Review

4 Complete

Review

Review your choices. After you create the user, you can view and download the autogenerated password and access key.

User details

User name	weathermood
AWS access type	Programmatic access and AWS Management Console access
Console password type	Custom
Require password reset	No

Permissions summary

The user shown above will be added to the following groups.

Type	Name
Group	weathermood



Cancel


Previous

Create user

# IAM

- Download .csv file

 Services ▾ Resource Groups ▾ 

 Tseng Cheng Wei ▾ Global ▾ Support ▾

## Add user

1

2

3

4

DetailsPermissionsReviewComplete

 **Success**

You successfully created the users shown below. You can view and download user security credentials. You can also email users instructions for signing in to the AWS Management Console. This is the last time these credentials will be available to download. However, you can create new credentials at any time.

Users with AWS Management Console access can sign-in at: <https://215277020447.signin.aws.amazon.com/console>

 Download .csv

	User	Access key ID	Secret access key	Email login instructions
▶	 weathermood		***** <a href="#">Show</a>	<a href="#">Send email</a> 

Close



# awsebcli

- `pip install --upgrade awsebcli`  
// under `weathermood-server`  
`eb init`

```
~/Documents/Projects/ss/weathermood-server master eb init
Select a default region
1) us-east-1 : US East (N. Virginia)
2) us-west-1 : US West (N. California)
3) us-west-2 : US West (Oregon)
4) eu-west-1 : EU (Ireland)
5) eu-central-1 : EU (Frankfurt)
6) ap-south-1 : Asia Pacific (Mumbai)
7) ap-southeast-1 : Asia Pacific (Singapore)
8) ap-southeast-2 : Asia Pacific (Sydney)
9) ap-northeast-1 : Asia Pacific (Tokyo)
10) ap-northeast-2 : Asia Pacific (Seoul)
11) sa-east-1 : South America (Sao Paulo)
12) cn-north-1 : China (Beijing)
13) us-east-2 : US East (Ohio)
14) ca-central-1 : Canada (Central)
15) eu-west-2 : EU (London)
(default is 3): 3

Select an application to use
1) weathermood
2) [ Create new Application ]
(default is 2): 2

Enter Application Name
(default is "weathermood-server"): weathermood-server
Application weathermood-server has been created.

It appears you are using Docker. Is this correct?
(Y/n): Y

Select a platform version.
1) Docker 1.12.6
2) Docker 1.11.2
3) Docker 1.9.1
4) Docker 1.7.1
5) Docker 1.6.2
6) Docker 1.5.0
(default is 1): 1

Note: Elastic Beanstalk now supports AWS CodeCommit; a fully-managed source control service.
Do you wish to continue with CodeCommit? (y/N) (default is n): n
Do you want to set up SSH for your instances?
(Y/n): n
```

# awsebcli

- The cli will ask for your access key and secret key for the first time

```
ERROR: The current user does not have the correct permissions. Reason: Operation Denied. The security token included in the request is invalid.  
You have not yet set up your credentials or your credentials are incorrect  
You must provide your credentials.  
(aws-access-id):   
(aws-secret-key): 
```



# awsebcli

- `eb create --single`  
Enter **weathermood-`{group id}`** for DNS CNAME prefix  
e.g. weathermood-1 for group 1

```
~/Documents/Projects/ss/weathermood-server master eb create --single
Enter Environment Name
(default is weathermood-server-dev):
Enter DNS CNAME prefix
(default is weathermood-server-dev):
Creating application version archive "app-5f5e-170501_184230".
Uploading weathermood-server/app-5f5e-170501_184230.zip to S3. This may take a while.
Upload Complete.
Environment details for: weathermood-server-dev
  Application name: weathermood-server
  Region: us-west-2
  Deployed Version: app-5f5e-170501_184230
  Environment ID: e-nfspyamd7p
  Platform: arn:aws:elasticbeanstalk:us-west-2::platform/Docker running on 64bit Amazon Linux 2.3.3
  Tier: WebServer-Standard
  CNAME: weathermood-server-dev.us-west-2.elasticbeanstalk.com
  Updated: 2017-05-01 10:42:39.230000+00:00
Printing Status:
INFO: createEnvironment is starting.
INFO: Using elasticbeanstalk-us-west-2-215277020447 as Amazon S3 storage bucket for environment
INFO: Created EIP: 35.161.172.169
INFO: Created security group named: awseb-e-nfspyamd7p-stack-AWSEBSecurityGroup-VJPZG8P0
INFO: Environment health has transitioned to Pending. Initialization in progress (running EC2 instances).
INFO: Waiting for EC2 instances to launch. This may take a few minutes.
INFO: Added instance [i-0ea45d6416fc784a4] to your environment.
INFO: Successfully pulled node:6.10
INFO: Successfully built aws_beanstalk/staging-app
INFO: Docker container 70de32ad0e43 is running aws_beanstalk/current-app.
INFO: Environment health has transitioned from Pending to Info. Initialization in progress (running EC2 instances for 4 minutes).
INFO: Successfully launched environment: weathermood-server-dev
```

# awsebcli

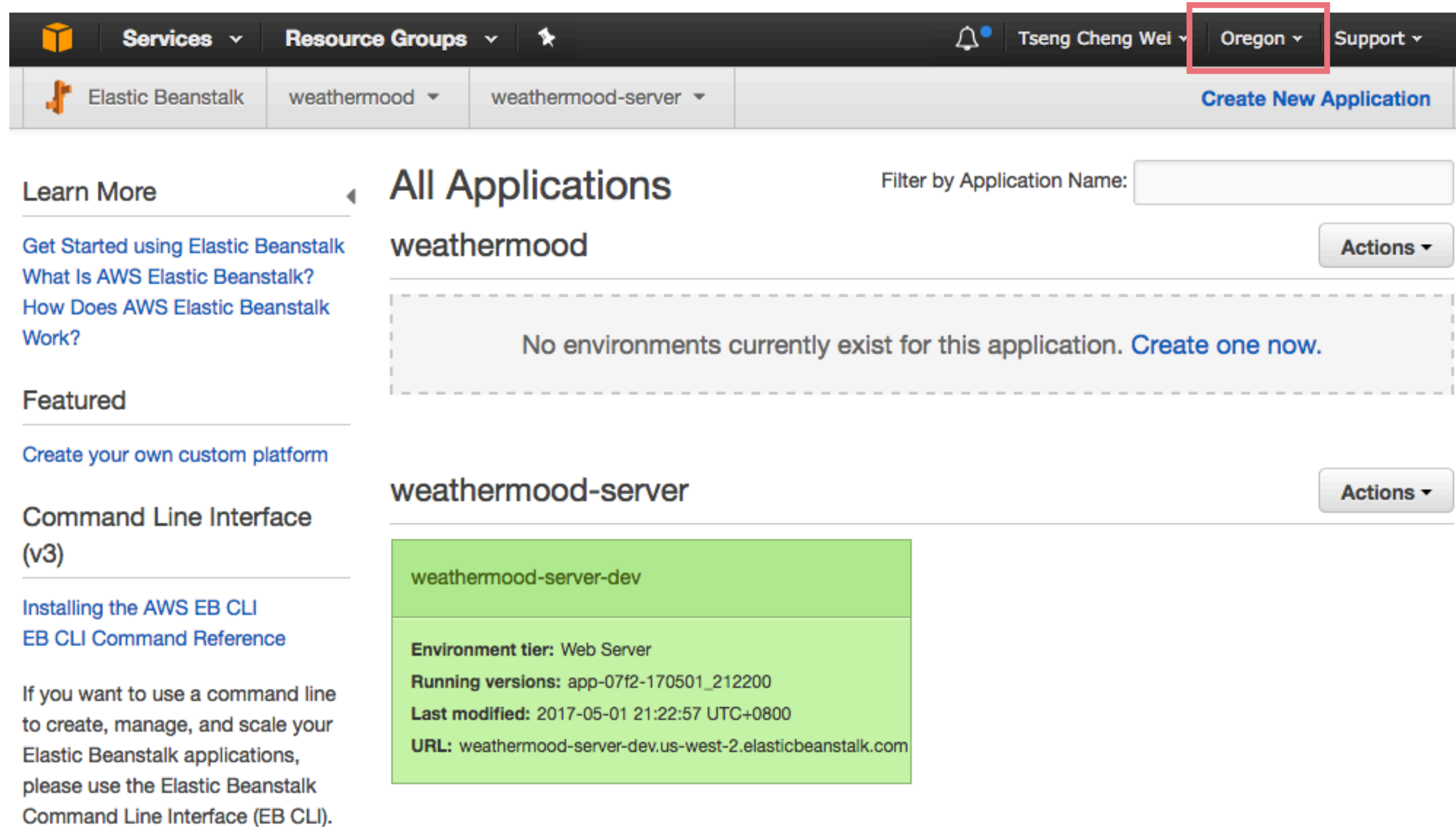
- `eb deploy <env>`

```
~/Documents/Projects/ss/weathermood-server ➤ master ➤ eb deploy
Creating application version archive "app-07f2-170501_212200".
Uploading weathermood-server/app-07f2-170501_212200.zip to S3. This may take a while.
Upload Complete.
INFO: Environment update is starting.
INFO: Deploying new version to instance(s).
INFO: Successfully pulled node:6.10
INFO: Successfully built aws_beanstalk/staging-app
INFO: Docker container f895c9c6f2c9 is running aws_beanstalk/current-app.
INFO: New application version was deployed to running EC2 instances.
INFO: Environment update completed successfully.
```

- It will deploy committed changes only. Therefore, you have to commit before you deploy.

# awsebcli

- If your application is not showing in the AWS console, please choose the region which you deployed you application to.



The screenshot shows the AWS Elastic Beanstalk console interface. At the top, the navigation bar includes the AWS logo, 'Services', 'Resource Groups', a user profile 'Tseng Cheng Wei', and a region dropdown menu. The 'Oregon' region is selected and highlighted with a red rectangle. Below the navigation bar, the breadcrumb trail shows 'Elastic Beanstalk' > 'weathermood' > 'weathermood-server'. A 'Create New Application' button is visible. The main content area is titled 'All Applications' and includes a filter by application name input field. Two applications are listed: 'weathermood' and 'weathermood-server'. The 'weathermood' application shows a message: 'No environments currently exist for this application. [Create one now.](#)'. The 'weathermood-server' application shows a list of environments, with 'weathermood-server-dev' selected. Details for this environment are displayed, including 'Environment tier: Web Server', 'Running versions: app-07f2-170501\_212200', 'Last modified: 2017-05-01 21:22:57 UTC+0800', and 'URL: weathermood-server-dev.us-west-2.elasticbeanstalk.com'.

Learn More

Get Started using Elastic Beanstalk  
What Is AWS Elastic Beanstalk?  
How Does AWS Elastic Beanstalk Work?

Featured

Create your own custom platform

Command Line Interface (v3)

Installing the AWS EB CLI  
EB CLI Command Reference

If you want to use a command line to create, manage, and scale your Elastic Beanstalk applications, please use the Elastic Beanstalk Command Line Interface (EB CLI).

**All Applications**

Filter by Application Name:

**weathermood** Actions

No environments currently exist for this application. [Create one now.](#)

**weathermood-server** Actions

**weathermood-server-dev**

**Environment tier:** Web Server  
**Running versions:** app-07f2-170501\_212200  
**Last modified:** 2017-05-01 21:22:57 UTC+0800  
**URL:** weathermood-server-dev.us-west-2.elasticbeanstalk.com

# Security

- Don't upload your accessKey.csv  
(Add it into .gitignore or keep it elsewhere)
- **!!!Don't put access key and secret key in you code!!!**



# Today's Mission

- For **each group**, implement TODO feature for both server and client
  - Server : model and router
  - Client : api/todos.jsAnd deploy to AWS
- You can deploy server and client to different website  
(Remember to add Access-Control-Allow-Origin in your response header)
- Your client url should be  
[http://weathermood-`{group id}`.`{region}`.elasticbeanstalk.com](http://weathermood-<code>{group id}</code>.<code>{region}</code>.elasticbeanstalk.com)  
e.g. <http://weathermood-101.us-west-2.elasticbeanstalk.com/>
- Submit your code to lab9-weathermood-server
- Deadline : **5/9 23:59**