

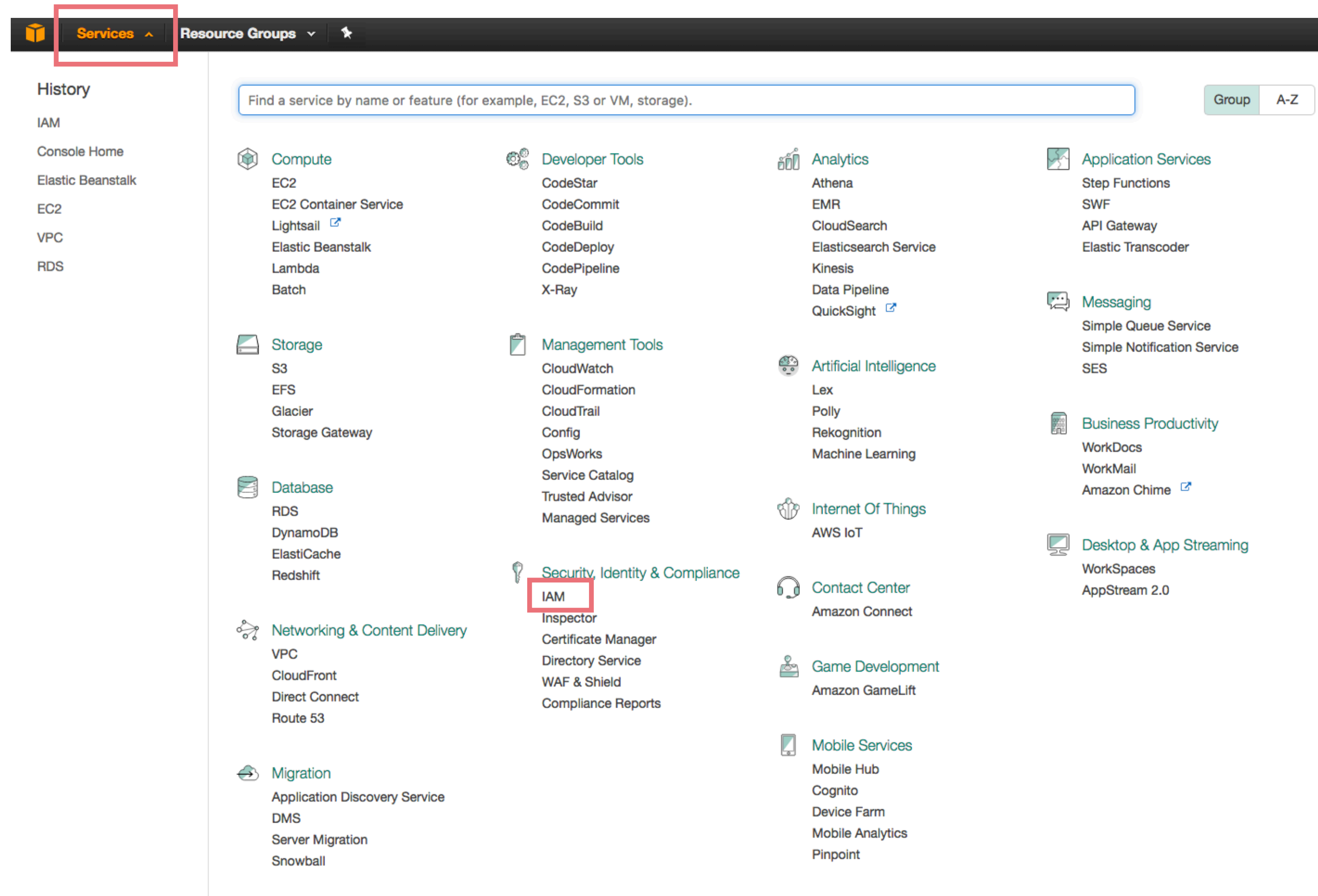
Lab 9

Deploy your app to AWS

Datalab

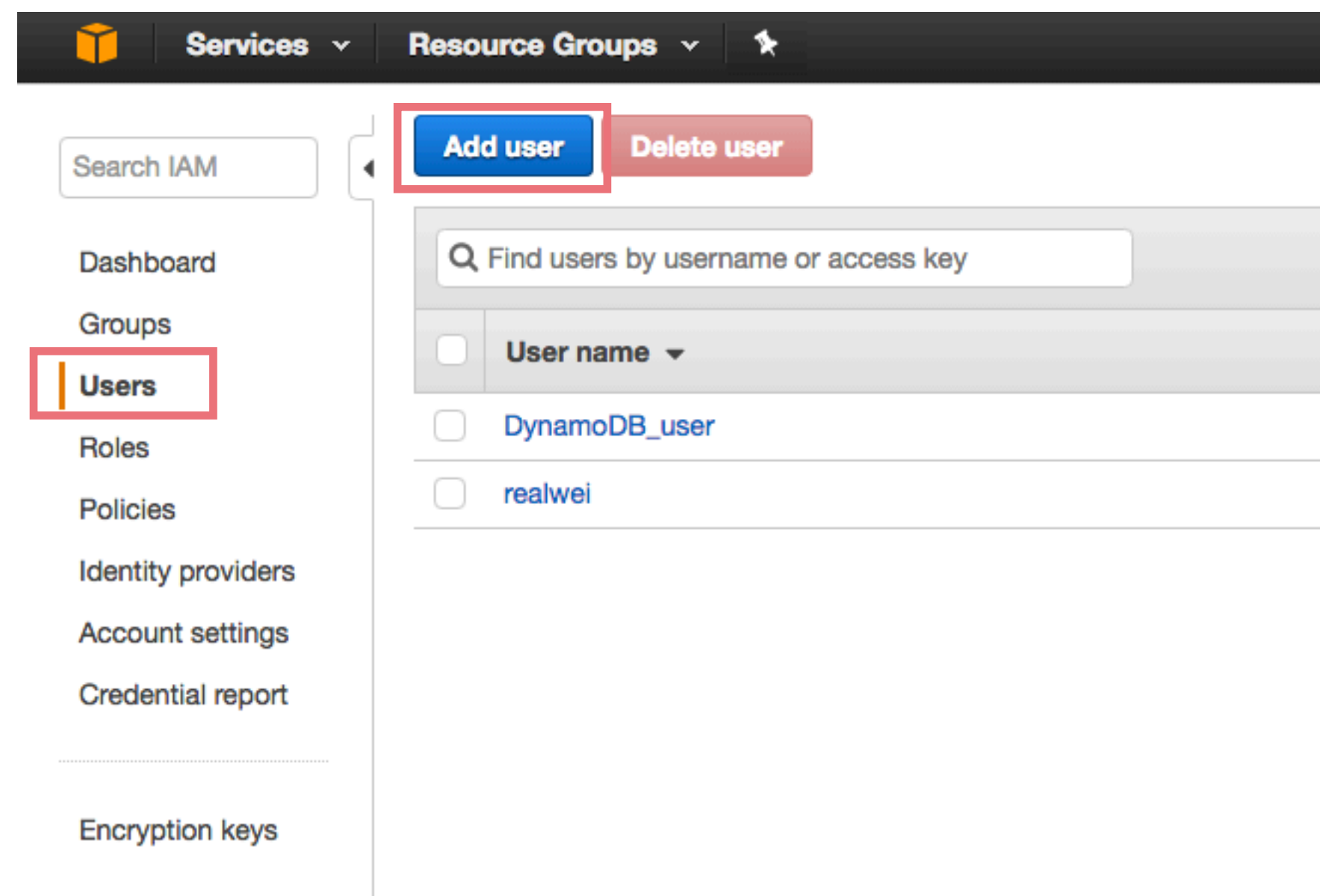
IAM

- 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' is active, showing a text input for 'User name*' with the value 'weathermood' and a link to 'Add another user'. The next section is 'Select AWS access type', with a note about access keys and passwords. 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 sign-in). Under 'Console password*', 'Custom password' is selected. A password input field shows masked characters, and there's a 'Show password' checkbox. At the bottom, the 'Require password reset' checkbox is unchecked and highlighted with a red box, with a note explaining that users will get the 'IAMUserChangePassword' policy. A footer note states '* 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

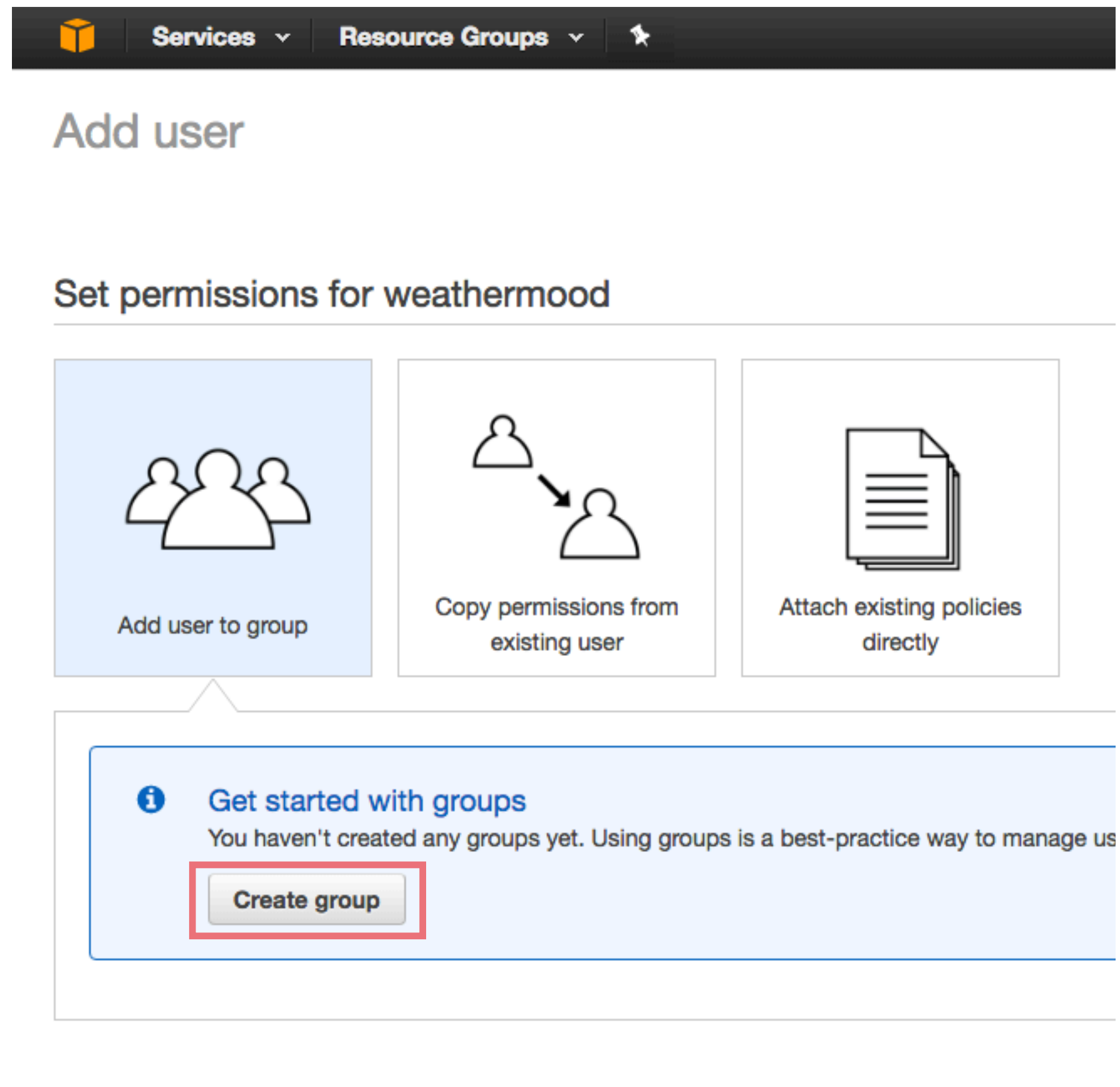
☐ Show password

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		***** Show	Send email 

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 'Services', 'Resource Groups', a user profile 'Tseng Cheng Wei', a region dropdown set to 'Oregon' (highlighted with a red box), and a 'Support' link. Below the navigation bar, the breadcrumb trail shows 'Elastic Beanstalk' > 'weathermood' > 'weathermood-server', followed by a 'Create New Application' button. The main content area is titled 'All Applications' with a filter input. It lists two applications: 'weathermood' and 'weathermood-server'. The 'weathermood' application is currently selected, showing a message: 'No environments currently exist for this application. [Create one now.](#)'. The 'weathermood-server' application is listed below it, showing details for an environment named 'weathermood-server-dev' in a green box. The details include: 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. On the left sidebar, there are links for 'Learn More', 'Featured', and 'Command Line Interface (v3)', including a link to 'Installing the AWS EB CLI'.

Services ▾ Resource Groups ▾ Tseng Cheng Wei Oregon ▾ Support ▾

Elastic Beanstalk weathermood ▾ weathermood-server ▾ Create New Application

Learn More ▾ All Applications Filter by Application Name:

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).

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-<math>\{group\ id\}.\{region\}.elasticbeanstalk.com)
e.g. <http://weathermood-101.us-west-2.elasticbeanstalk.com/>
- Submit your code to lab9-weathermood-server
- Deadline : **5/9 23:59**