

Create a backend Fibonacci Microservice  
and deploying it on IBM Bluemix Cloudfoundry

# Step 1 : When you are on the IBM Cloud Dashboard, Go to the Web Apps section from the Hamburger Menu

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Cloud Foundry

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CLOUD FOUNDRY ORG

Organizations 

CLOUD FOUNDRY SPACE

All Spaces 

LOCATION

All Locations 

CATEGORY

All Categories 

Filter by resource name...

Create resource

Locations

Region	CF Org	CF Space	Memory (MB)	Status
United Kingdom	arpit.jain@iiitdmj.ac.in	dev	256	● Running
United Kingdom	arpit.jain@iiitdmj.ac.in	dev	256	● Running
US South	arpit.jain@iiitdmj.ac.in	dev	256	● Running

Resources

Region	CF Org	CF Space	Plan	Service Offering
United Kingdom	arpit.jain@iiitdmj.ac.in	dev	Lite	Continuous Delivery
United Kingdom	arpit.jain@iiitdmj.ac.in	dev	Lite	Watson Assistant (formerly

FEEDBACK



Overview

Starter Kits

Developer Resources ^

Documentation

Learning Resources

Apps



## IBM Cloud App Service

Fast on-ramp for building cloud-native apps



### Start from the Web

Use our Starter Kit configurator to set up your Cloud Native apps and DevOps environment in minutes.


[Get Started](#)


### Start from CLI

Develop and test with a complete local dev environment including an app generator, local sandbox, IDE Extensions, and deployment tools.

[Get Developer Tools](#)

# Step 3 : Select Node.js template

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Create App

Start creating a custom application using services and programming runtime of your choice.

Mendix

Experimental

▼

Microservice

▼

Java Spring Basic

A starter that provides a basic web serving application in Java, using the Spring framework.

Web App

▼

Express.js React

A starter that provides a rich React frontend delivered from a Node.js application, including key...

Web App

▼

Python Flask Basic

A starter that provides a basic web serving application using the Flask framework.

Web App

▼

MongoDb + Express + Angular + Node

A starter project for setting up a mongodb, express, angular and node application

Web App

▼

Java MicroProfile / Java EE Backend with Liberty Beta

A starter building backend-for-frontend APIs in Java, using the MicroProfile / Java EE framework...

Backend for Frontend

▼

Java MicroProfile / Java EE Basic with Liberty Beta

A starter that provides a basic web serving application in Java, using the MicroProfile / Java EE...

Web App

▼



# Step 4 : Specify the application attributes

Starter Kits / Create App

MongoDb + Express + Angular + Node

## App Details

Name your app

fibonacci

Select region to deploy in:

US South

Choose an organization:

arpit.jain@iiitdmj.ac.in

Choose a space:

dev

Host

fibonacci

Domain

mybluemix.net

Select your language

☒ Node.js

Create

Cancel

Need Help? [Contact IBM Cloud Sales](#)

# Step 5 : The App space is created on the cloud. (Application is not yet running)

☰

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Apps / App Details

fibonacci

Node

Location: United Kingdom   Org: arpit.jain@iiitdmj.ac.in   Space: dev

Resources (0)

No resources

Click Add Resource to add a new resource to your app.

Add Resource

Add Resource

Deploy your App

Continuous delivery is not enabled for this app. Enable continuous delivery to automate builds, tests, and deployments through the Delivery Pipeline, GitLab, and more.

Deploy to Cloud

Credentials

No credentials

Credentials will be displayed after a resource is added to your app.

Knowledge Guide

# Step 6 : Download starter code



Node

Location: United Kingdom Org: arpit.jain@iiitdmj.ac.in Space: dev



Download Code



Resources (0)

[Add Resource](#)



No resources

Click Add Resource to add a new resource to your app.

Add Resource

Deploy your App



Continuous delivery is not enabled for this app. Enable continuous delivery to automate builds, tests, and deployments through the Delivery Pipeline, GitLab, and more.

Deploy to Cloud

Credentials



No credentials

Credentials will be displayed after a resource is added to your app.

Knowledge Guide

What do you want to do with 58d64994-ba5b-4f57-ae8d-120de3f94049.zip?  
From: console.bluemix.net

Open






Save



Cancel



## Step 7 : Open the code in explorer and build upon it.

	.bluemix	File folder					
	chart	File folder					
	client	File folder					
	public	File folder					
	server	File folder					
	test	File folder					
	.cfignore	CFIGNORE File	1 KB	No	1 KB	0%	14-06-2018 11:45
	.dockerignore	DOCKERIGNORE File	1 KB	No	1 KB	22%	14-06-2018 11:45
	.gitignore	Text Document	1 KB	No	1 KB	45%	14-06-2018 11:45
	.travis.yml	YML File	1 KB	No	1 KB	28%	14-06-2018 11:45
	cli-config.yml	YML File	1 KB	No	3 KB	70%	14-06-2018 11:45
	docker-compose.yml	YML File	1 KB	No	1 KB	43%	14-06-2018 11:45
	docker-compose-tools.yml	YML File	1 KB	No	1 KB	47%	14-06-2018 11:45
	Dockerfile	File	1 KB	No	1 KB	43%	14-06-2018 11:45
	Dockerfile-tools	File	1 KB	No	1 KB	41%	14-06-2018 11:45
	Jenkinsfile	File	1 KB	No	1 KB	15%	14-06-2018 11:45
	LICENSE	File	1 KB	No	2 KB	43%	14-06-2018 11:45
	manifest.yml	YML File	1 KB	No	1 KB	25%	14-06-2018 11:45
	package.json	JSON File	1 KB	No	2 KB	61%	14-06-2018 11:45
	README.md	MD File	4 KB	No	10 KB	64%	14-06-2018 11:45
	run-debug	File	1 KB	No	1 KB	39%	14-06-2018 11:45
	run-dev	File	1 KB	No	1 KB	10%	14-06-2018 11:45
	webpack.common.js	JavaScript File	1 KB	No	2 KB	50%	14-06-2018 11:45
	webpack.dev-proxy.js	JavaScript File	1 KB	No	1 KB	40%	14-06-2018 11:45
	webpack.dev-standalone.js	JavaScript File	1 KB	No	1 KB	38%	14-06-2018 11:45
	webpack.prod.js	JavaScript File	1 KB	No	1 KB	42%	14-06-2018 11:45


Code the Fibonacci Microservice using this starter template.



# Step 8 : Open the application route to check if Microservice is up and running.

☰

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Getting started

Overview

Runtime


Connections

Logs

Monitoring

API Management

Cloud Foundry apps /



fibonacci-service

●

Running


[Visit App URL](#)

Org: arpit.jain@iiitdmj.ac.in

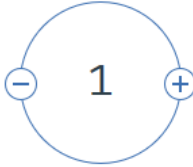
Location: US South

Space: dev

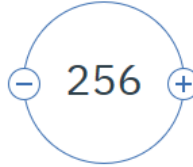
Runtime




**BUILDPACK**  
SDK for Node.js™




**INSTANCES**  
All instances are running  
Health is 100%



**MB MEMORY PER INSTANCE**



**TOTAL MB ALLOCATION**  
1.75 GB still available 

Connections

No services are connected to this app  
You can bind a service:

Create connection

Runtime cost

\$ 0.00

Current charges for billing period

\$ 0.00

Estimated total for billing period  
(Jun 1, 2018 - Jun 30, 2018)

Current and estimated cost excludes [connected services](#).

View full usage details

Routes

fibonacci-service-talkative-emu.mybluemix.net

Edit routes

Manage domains

## Step 9 : Making call requests to the microservice.

GET ▾

http://fibonacci-service-talkative-emu.mybluemix.net/fibonacci?iteration=500

SEND

USE DEFINITION

⌵ Request

Parameters (1)

Authentication & Headers

Body

CLEAR REQUEST

iteration

500



ADD NEW PARAMETER

⌵ Response

Status: 200 OK Time: 972 ms

PRETTY

SHOW HEADERS

DARK THEME



```
1 {
2   "number": "139423224561697880139724382870407283950070256587697307264108962948325571622863290691557658876222521294125",
3   "length": 105,
4   "iterations": "500",
5   "ms": 21
6 }
```

History

Collections



CREATE API DEFINITION



⌵ Pinned

No pinned items

⌵ History



14 Jun 2018 20:39

GET

http://fibonacci-service-talkative-emu.mybluemix.net/fibonacci?it...



## Step 10 : Making call requests to the microservice.

GET ▾

http://fibonacci-service-talkative-emu.mybluemix.net/fibonacci?duration=500

SEND

USE DEFINITION

### Request

Parameters (1)

Authentication & Headers

Body

CLEAR REQUEST

duration

500



ADD NEW PARAMETER

### Response

Status: 200 OK Time: 814 ms

PRETTY

SHOW HEADERS

DARK THEME



```
1 {
2   "number": "441410317142271793535596250949945434977862216240078145969755239926602899807305230186198359209809117032538
   2922374854427709365699448595338643109175128231512749180137239630552350668736159301331619783913278988698914397585
   1031229582429384817070437037752397510322296297640025108379975515522255375742102119454271542755705353417444876105
   1819538928625113616291327687491964983419534355117584736940191466812450258041418841192194016799541000001779680311
   5148941554642484534655371013695818145603303564888547079314332213882853124811024475730089466430117462078329371553
   861038010496072275843988120946471902434970719656034482802077255302581089149251082976",
3   "length": 637,
4   "iterations": "3048",
5   "ms": 500
6 }
```

History

Collections



CREATE API DEFINITION



^ Pinned

No pinned items

^ History

- ☐ 14 Jun 2018 20:39 GET http://fibonacci-service-talkative-emu.mybluemix.net/fibonacci?d...
- ☐ 14 Jun 2018 20:39 GET http://fibonacci-service-talkative-emu.mybluemix.net/fibonacci?it...