Slack Chatbots

com Python, AWS Lambda e Google Dialogflow

Mary Marchini





Mary Marchini

Developers Team Leader @ Sthima Node.js Collaborator Node.js Diagnostics WG Member





@mmarkini



http://mmarchini.me/

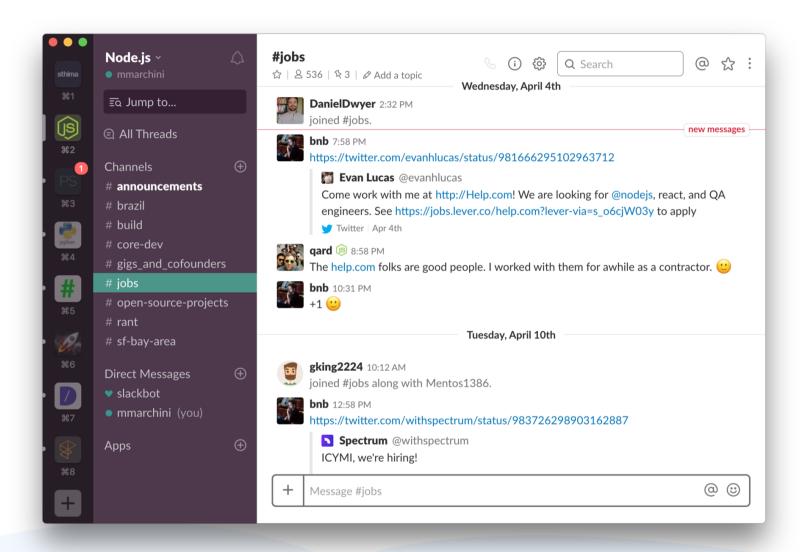


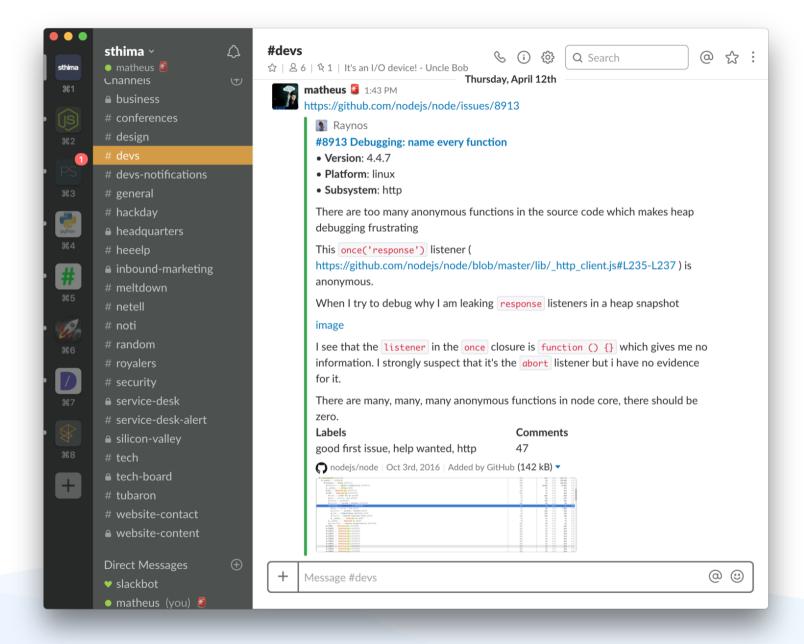
oss@mmarchini.me

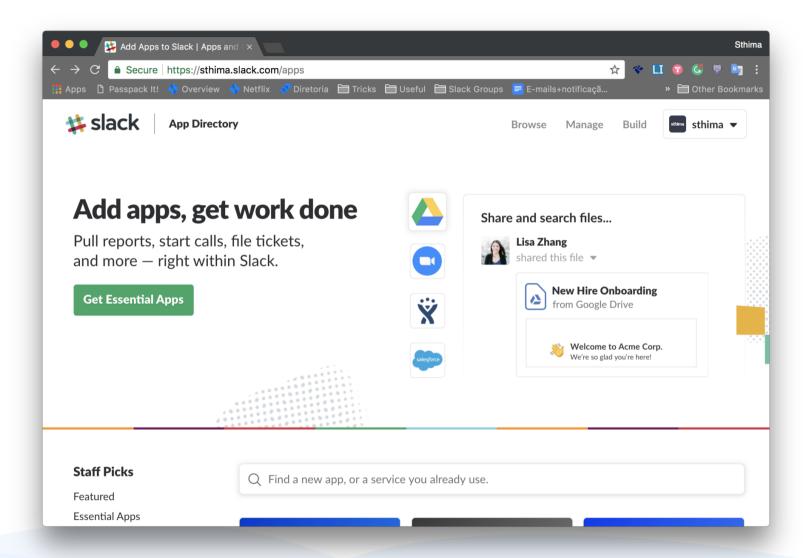


https://github.com/mmarchini/



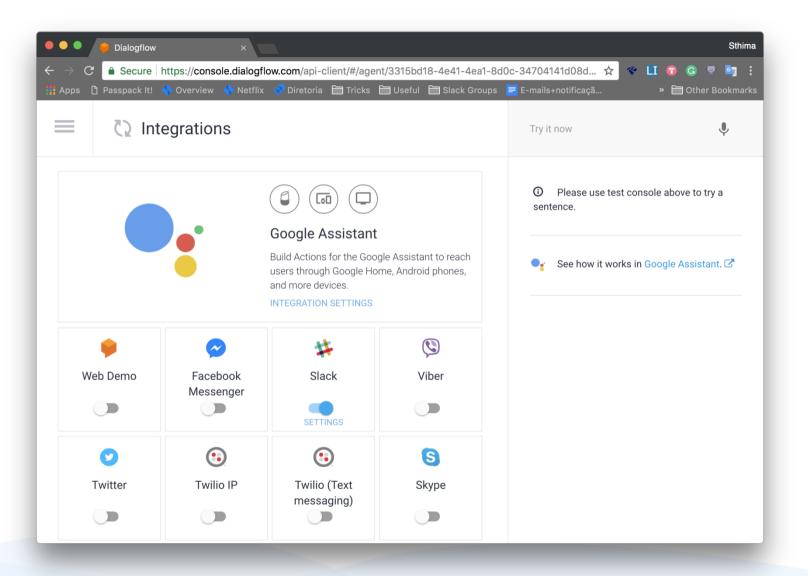




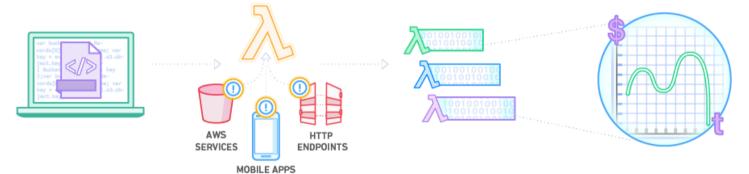




```
Book a flight
                     from Los Angeles
                     to Hawaii for less
                         than $300
                                             You got it!
"timestamp": "2017-05-26121.
"lang": "en",
"result": {
"source": "agent",
"action": "flight.book", "parameters": {"geo-city": "Los Angeles",
'<mark>geo-state-us</mark>': "Hawaii", "price": {"<mark>amount</mark>": 300, "<mark>currency</mark>': "USD"},
"contexts": [{"name": "flightbook", "parameters": {
"geo-state-us.original": "Hawaii",
"price": {
"amount": 300,
```







Upload your code to AWS Lambda

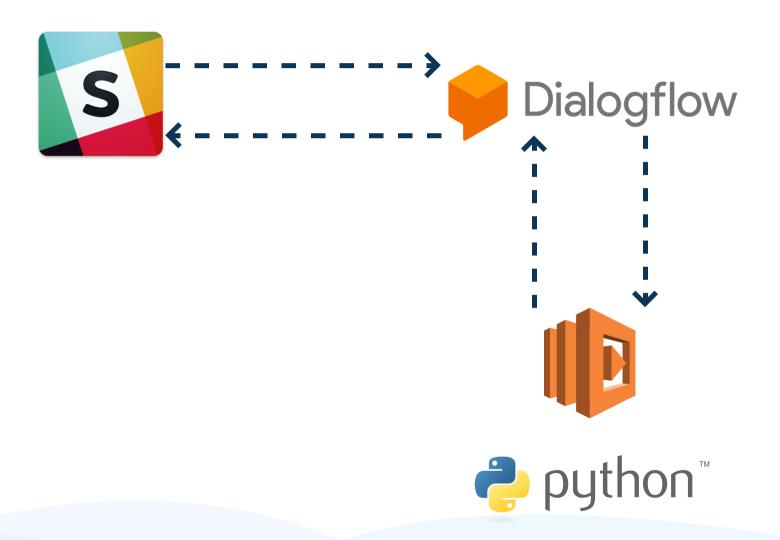
Set up your code to trigger from other AWS services, HTTP endpoints, or in-app activity

Lambda runs your code only when triggered, using only the compute resources needed

Pay just for the compute time you use

" Não configure na mão!

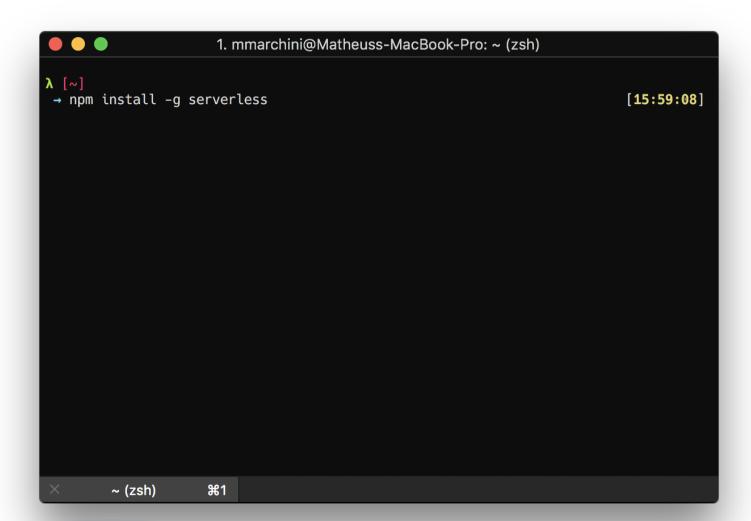


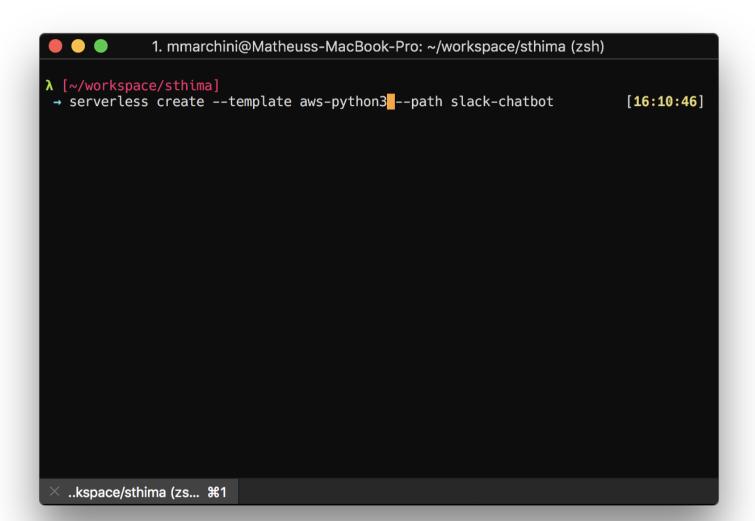


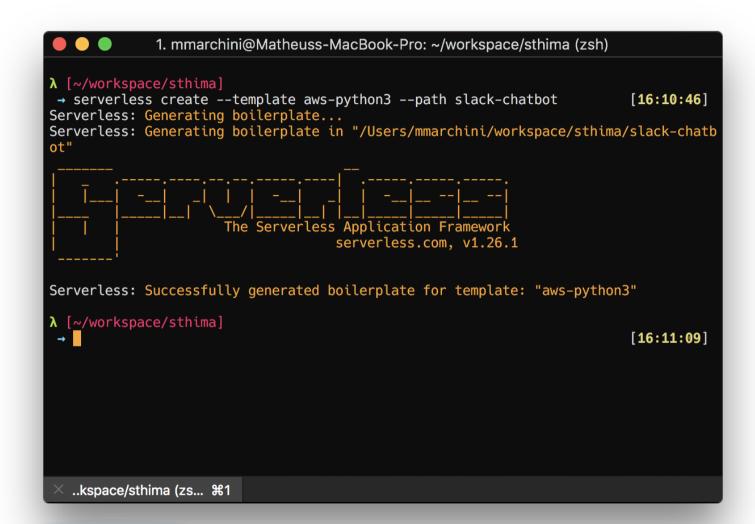
Pré-Requisitos

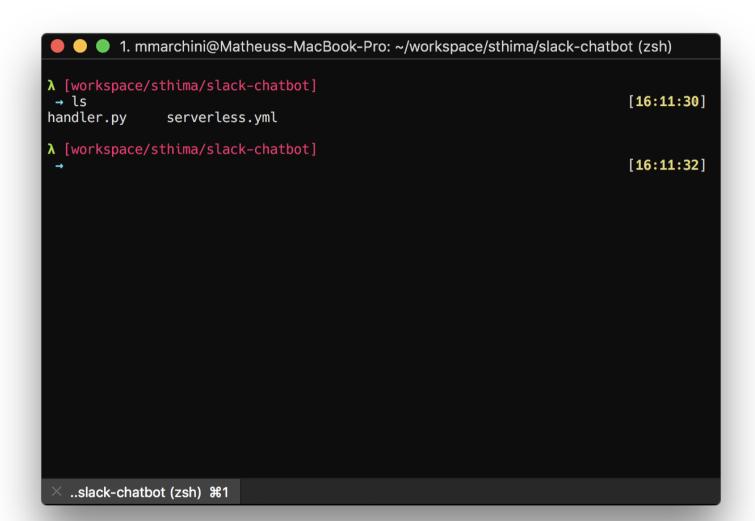
- Ter **npm** instalado
- Ter uma conta da AWS (gratúita)
- Ter uma conta do Slack (gratúita)
- Ter uma conta no Dialogflow (gratúita)
 - Pode usar conta do Google

- Instalar Serverless e Criar projeto
- Configurar Credenciais da AWS
- Fazer deploy no AWS Lambda
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- Criar Intenção no Dialogflow
- Configurar Webhook no Dialogflow
- Implementar resposta no AWS Lambda







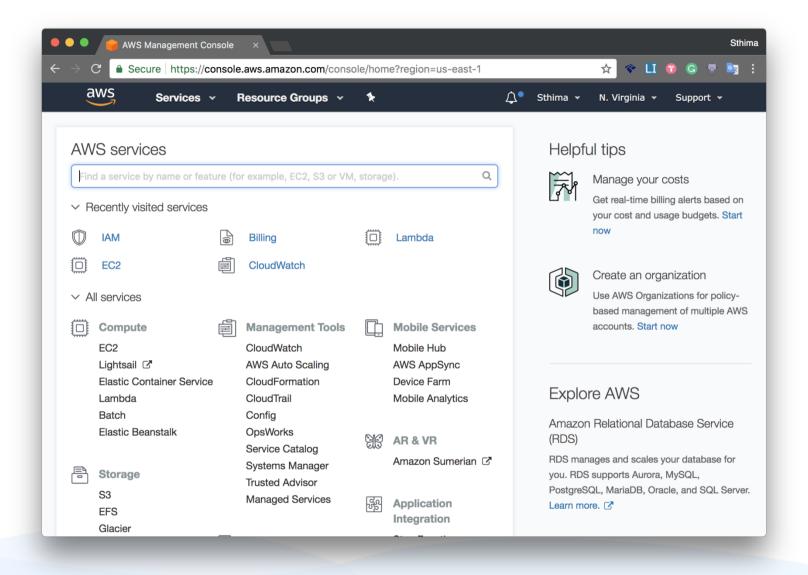


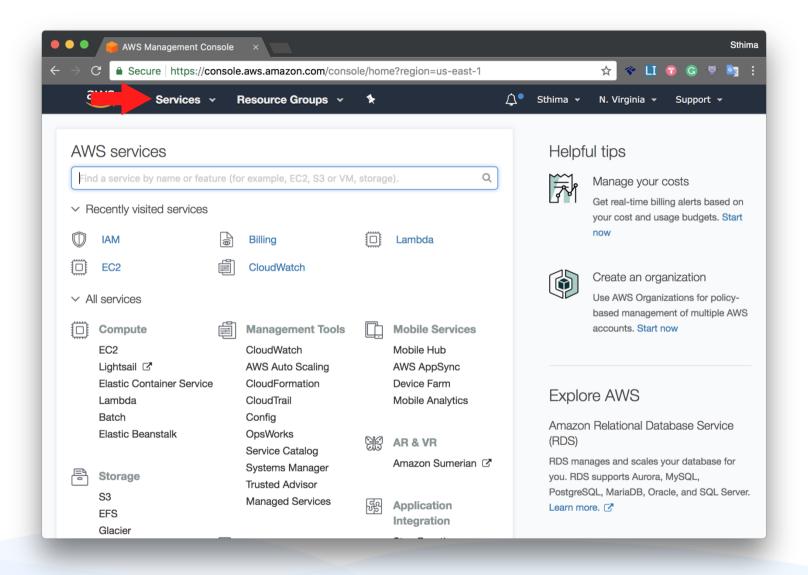
```
import json
def hello(event, context):
    body = {
        "message":
            "Go Serverless v1.0! Your function executed successfully!",
        "input": event
    response = {
        "statusCode": 200,
        "body": json.dumps(body)
    return response
```

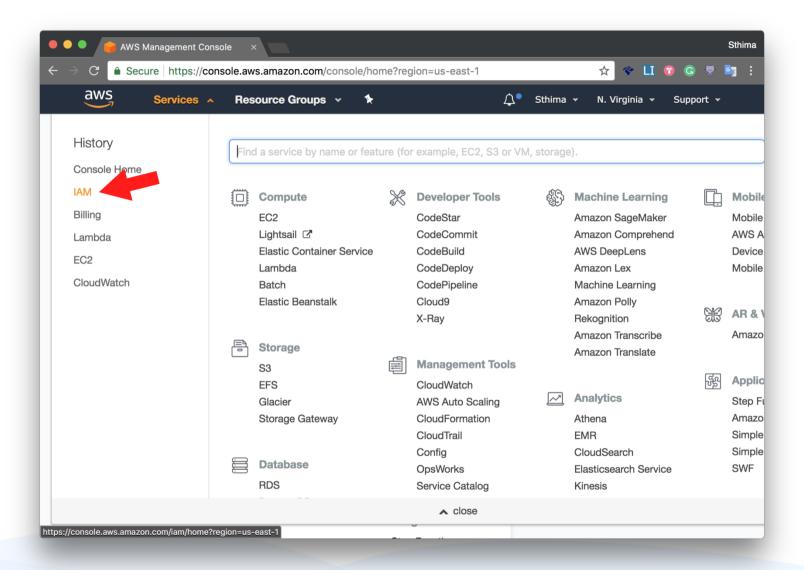
```
service: slack-chatbot
provider:
  name: aws
  runtime: python3.6
functions:
  hello:
    handler: handler.hello
```

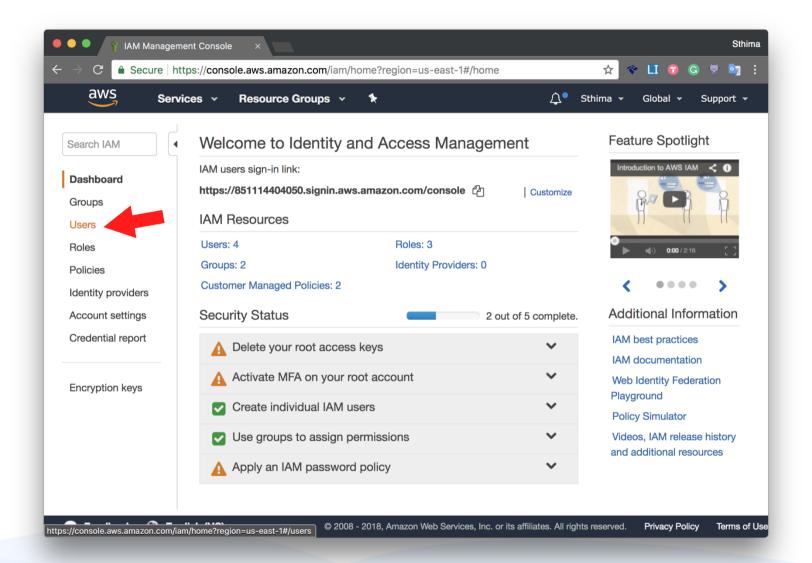
```
service: slack-chatbot
provider:
  name: aws
  runtime: python3.6
functions:
  hello:
    handler: handler.hello
    events:
      - http:
          path: slack-chatbot/hello/
          method: get
```

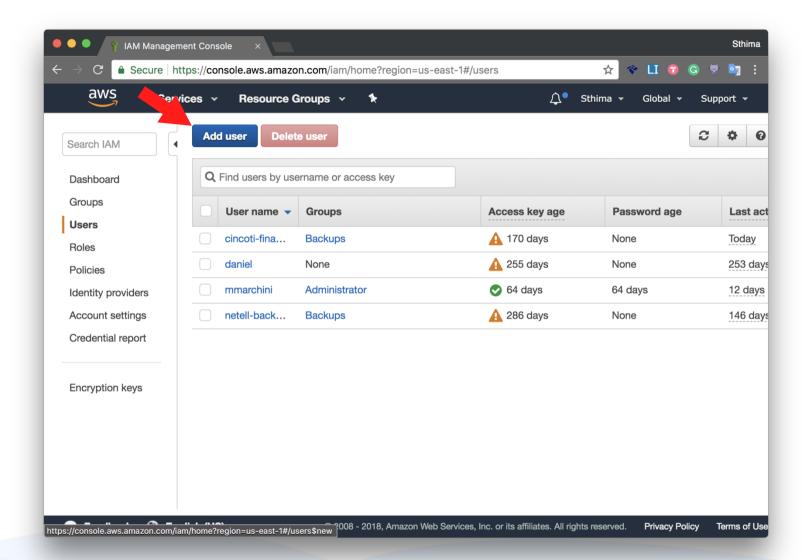
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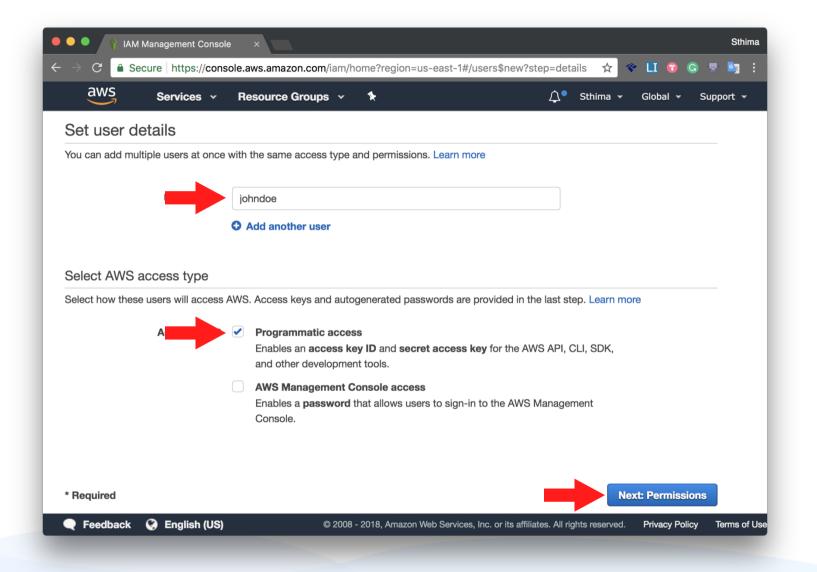


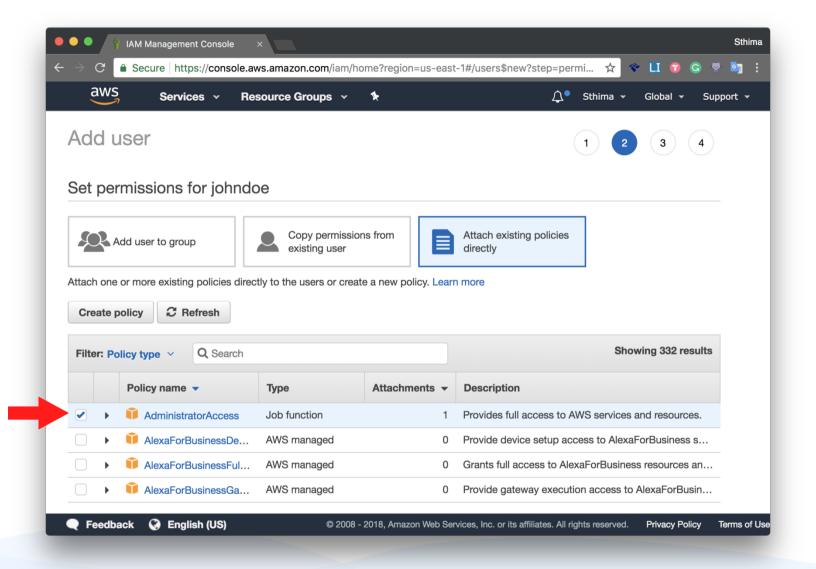


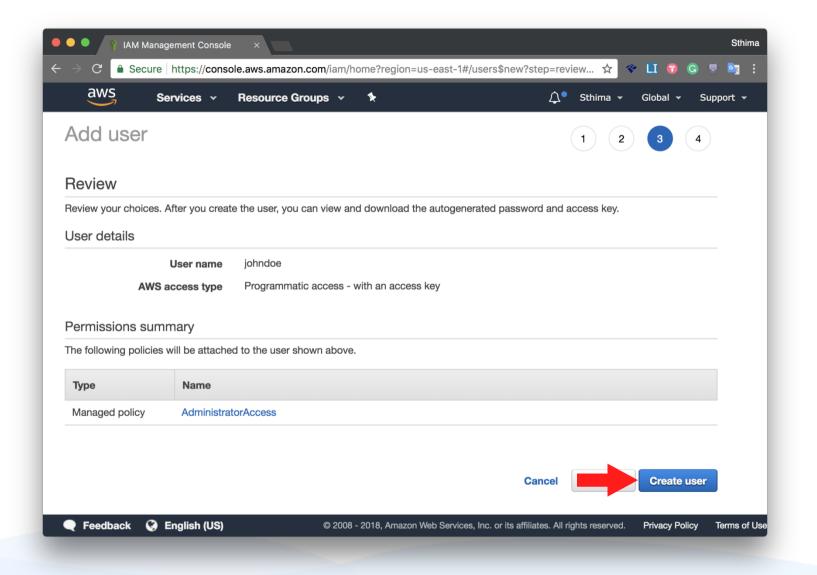


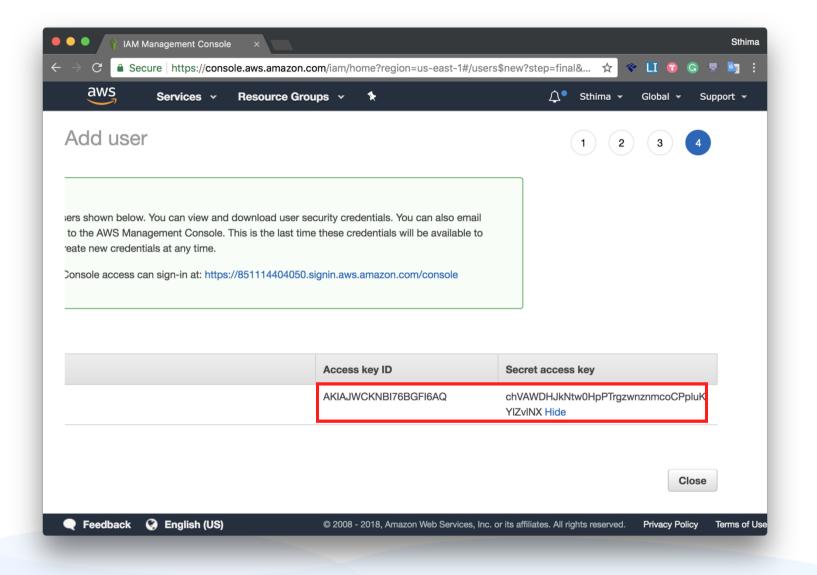


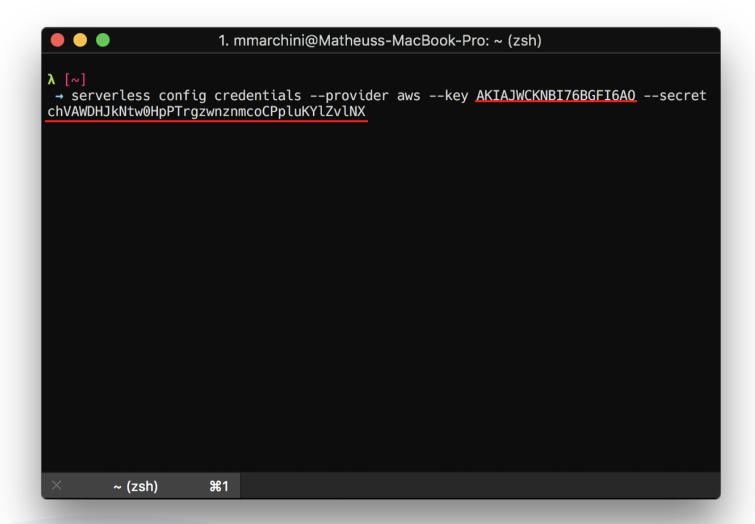








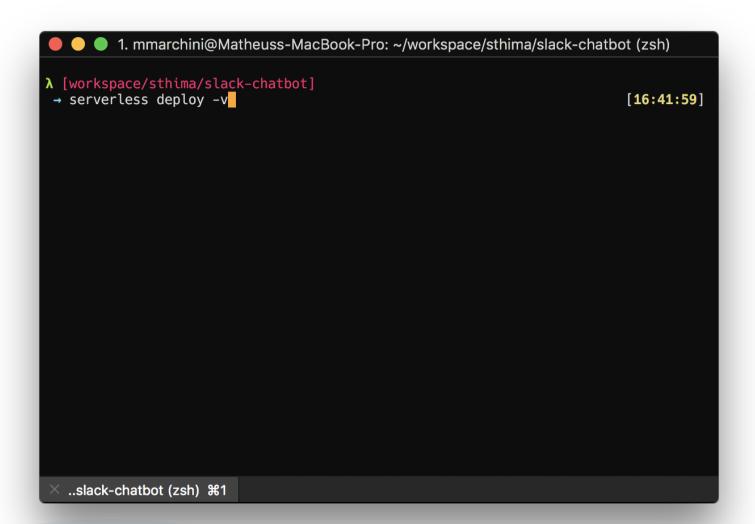




```
1. mmarchini@Matheuss-MacBook-Pro: ~ (zsh)
λ [~]
 → serverless config credentials --provider aws --key AKIAJWCKNBI76BGFI6AQ --secret
chVAWDHJkNtw0HpPTrgzwnznmcoCPpluKYlZvlNX
Serverless: Setting up AWS...
Serverless: Saving your AWS profile in "~/.aws/credentials"...

Serverless: Success! Your AWS access keys were stored under the "default" profile.
λ [~]
                                                                                      [16:09:07]
          ~ (zsh)
                        #1
```

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```
● ● 1. mmarchini@Matheuss-MacBook-Pro: ~/workspace/sthima/slack-chatbot (zsh)
slack-chatbot-dev
CloudFormation - UPDATE COMPLETE - AWS::CloudFormation::Stack - slack-chatbot-dev
Serverless: Stack update finished...
Service Information
service: slack-chatbot
stage: dev
region: us-east-1
stack: slack-chatbot-dev
api keys:
 None
endpoints:
 GET - https://72l028zu9i.execute-api.us-east-1.amazonaws.com/dev/slack-chatbot/hel
lo
functions:
 hello: slack-chatbot-dev-hello
Stack Outputs
HelloLambdaFunctionOualifiedArn: arn:aws:lambda:us-east-1:851114404050:function:slac
k-chatbot-dev-hello:2
ServiceEndpoint: https://72l028zu9i.execute-api.us-east-1.amazonaws.com/dev
ServerlessDeploymentBucketName: slack-chatbot-dev-serverlessdeploymentbucket-lre8v0c
wla78
\lambda [workspace/sthima/slack-chatbot]
                                                                        [16:43:25]
```

1. mmarchini@Matheuss-MacBook-Pro: ~/workspace/sthima/slack-chatbot (zsh)

λ [workspace/sthima/slack-chatbot]

→ curl https://72l028zu9i.execute-api.us-east-1.amazonaws.com/dev/slack-chatbot/hel lo {"message": "Go Serverless v1.0! Your function executed successfully!", "input": {"r esource": "/slack-chatbot/hello", "path": "/slack-chatbot/hello", "httpMethod": "GET ", "headers": {"Accept": "*/*", "CloudFront-Forwarded-Proto": "https", "CloudFront-I s-Desktop-Viewer": "true", "CloudFront-Is-Mobile-Viewer": "false", "CloudFront-Is-Sm artTV-Viewer": "false", "CloudFront-Is-Tablet-Viewer": "false", "CloudFront-Viewer-C

ountry": "BR", "Host": "721028zu9i.execute-api.us-east-1.amazonaws.com", "User-Agent ": "curl/7.54.0", "Via": "2.0 8e0232e4629da37b0d6adfe96cea8474.cloudfront.net (Cloud Front)", "X-Amz-Cf-Id": "zb4444HlrC01vl4PvEUeswi3QHLRzra0ZNRJdwRYaTP3W2PfDYn-zg==", "X-Amzn-Trace-Id": "Root=1-5ad3ab83-344e5aa280f6b36c92893dc4", "X-Forwarded-For": "2 01.21.60.39, 54.182.233.18", "X-Forwarded-Port": "443", "X-Forwarded-Proto": "https" }, "queryStringParameters": null, "pathParameters": null, "stageVariables": null, "requestContext": {"resourceId": "7ncoc9", "resourcePath": "/slack-chatbot/hello", "httpMethod": "GET", "extendedRequestId": "FZe8iH2aoAMFb_w=", "requestTime": "15/Apr/20 18:19:44:03 +0000", "path": "/dev/slack-chatbot/hello", "accountId": "851114404050", "protocol": "HTTP/1.1", "stage": "dev", "requestTimeEpoch": 1523821443432, "request

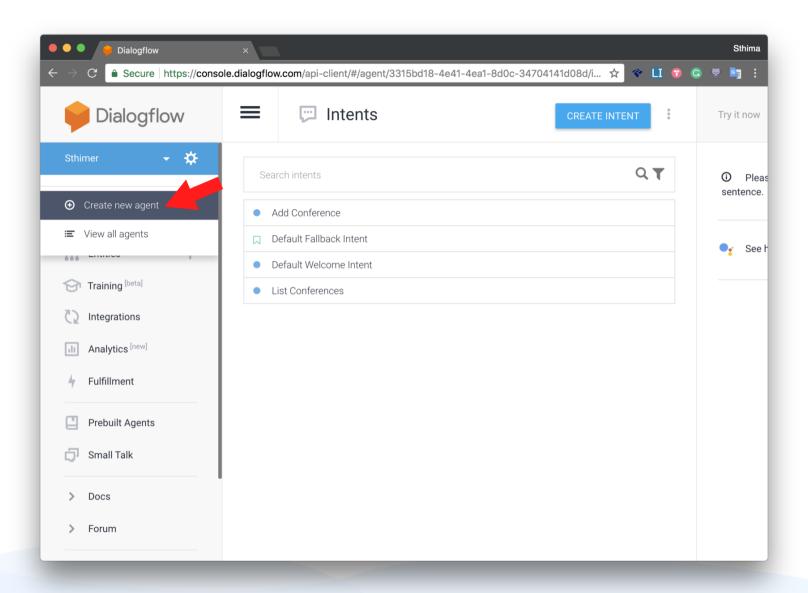
Id": "59dfaf12-40e5-11e8-8b2e-f1b02e4de144", "identity": {"cognitoIdentityPoolId": null, "accountId": null, "cognitoIdentityId": null, "caller": null, "sourceIp": "201. 21.60.39", "accessKey": null, "cognitoAuthenticationType": null, "cognitoAuthenticationProvider": null, "userArn": null, "userAgent": "curl/7.54.0", "user": null}, "api Id": "72l028zu9i"}, "body": null, "isBase64Encoded": false}

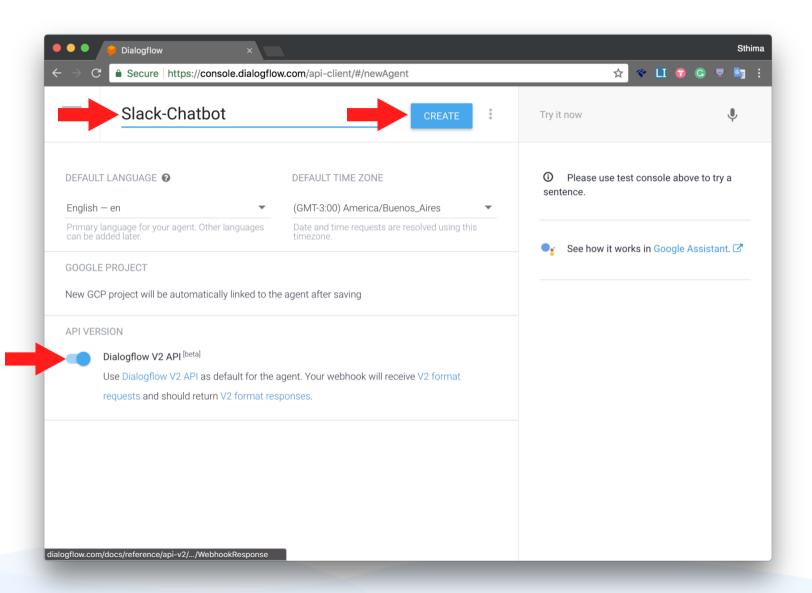
λ [workspace/sthima/slack-chatbot]

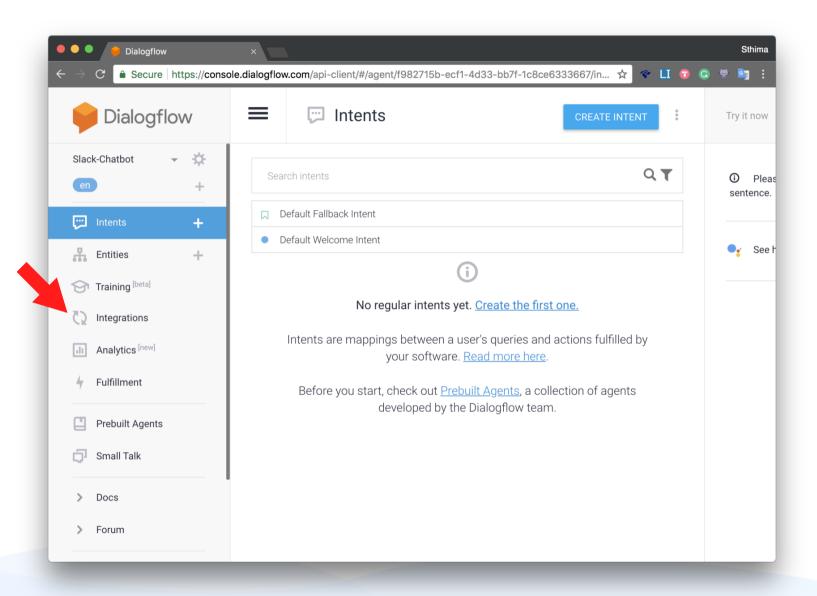
[16:44:04]

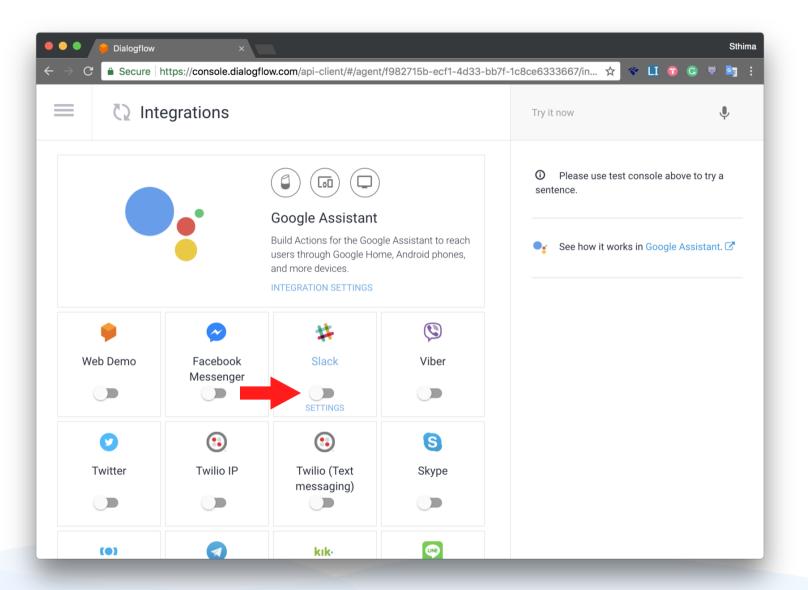
× ..slack-chatbot (zsh) 第1

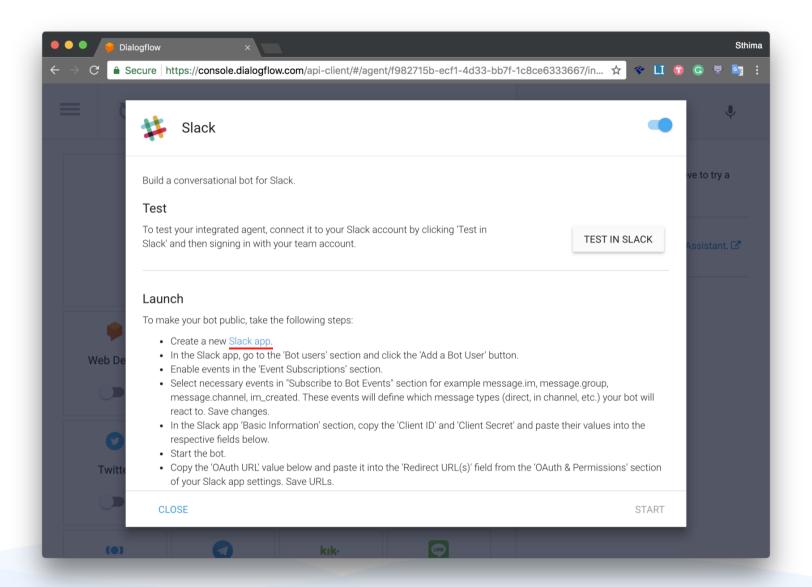
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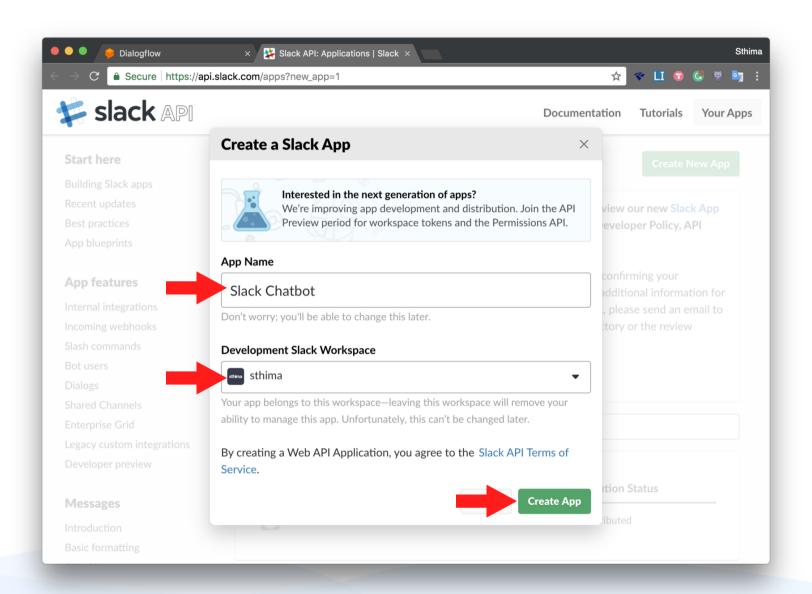


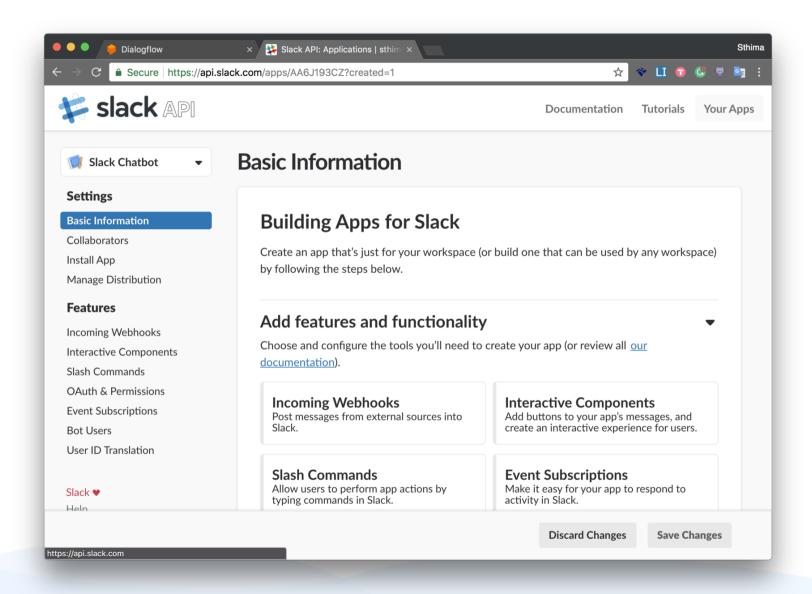


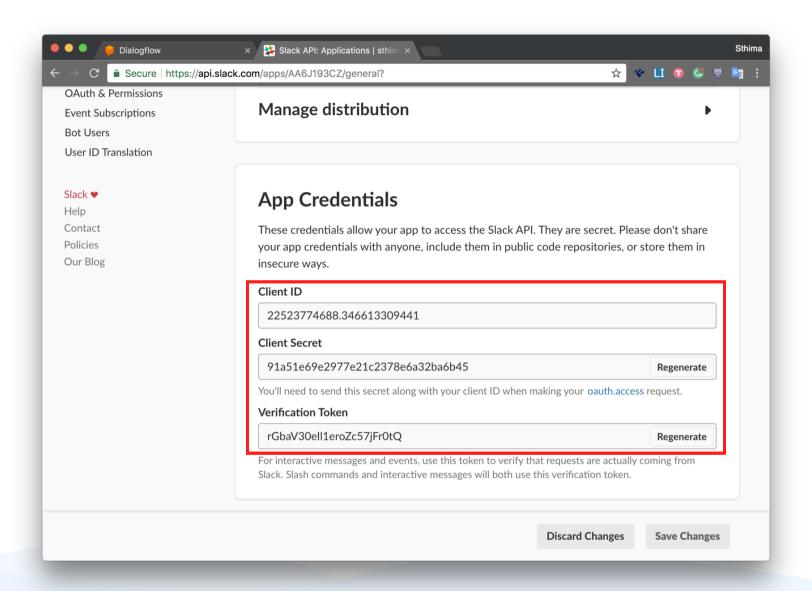


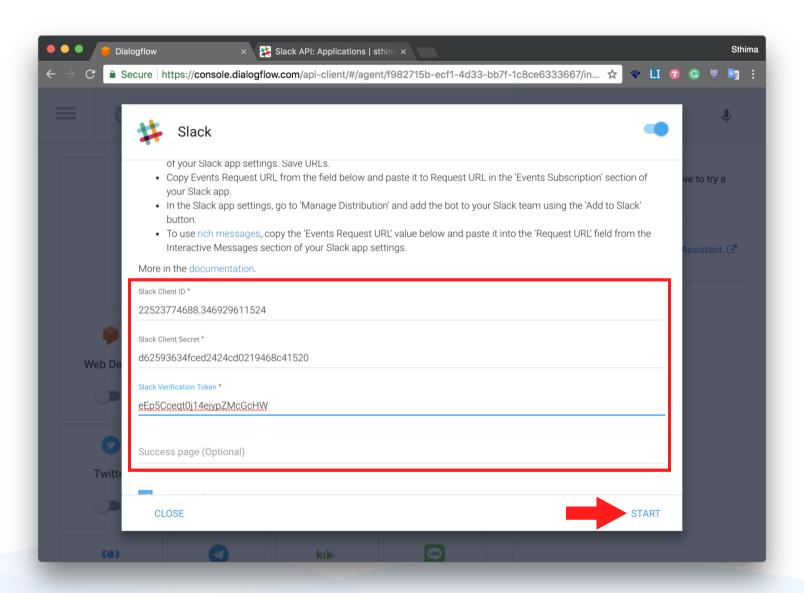


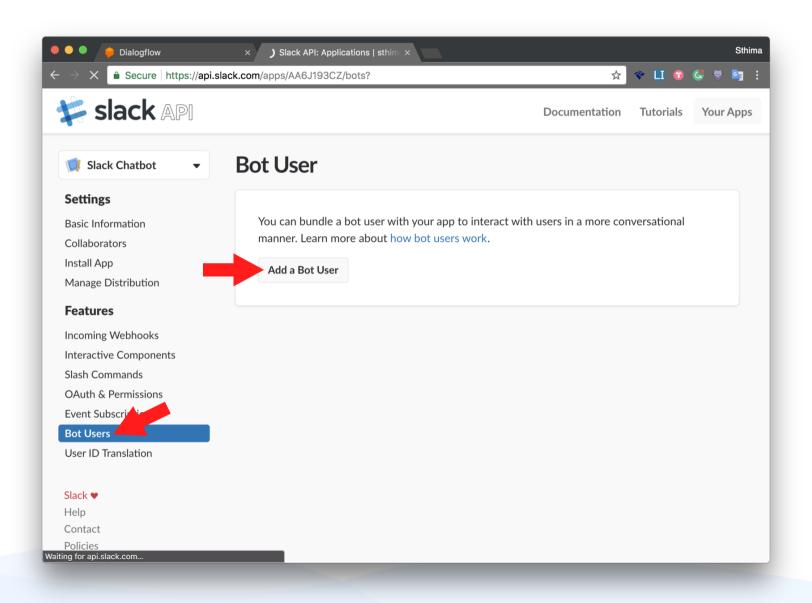


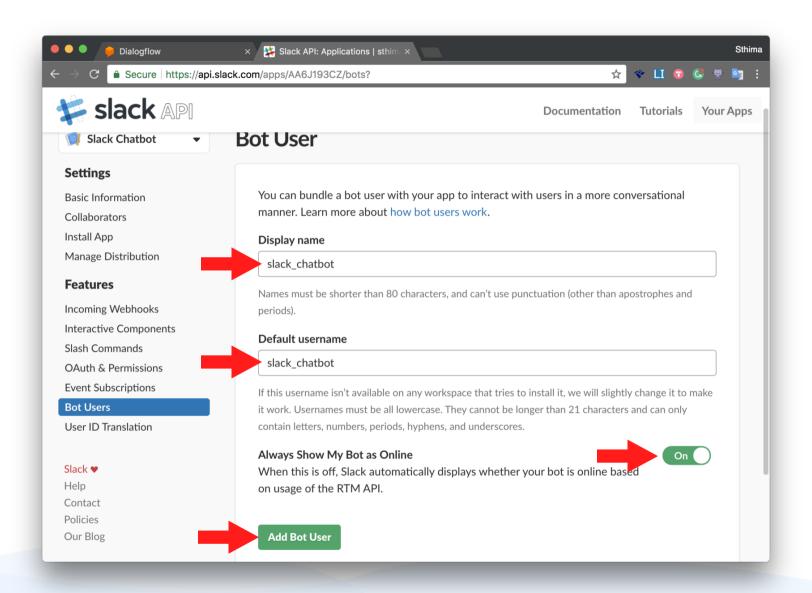


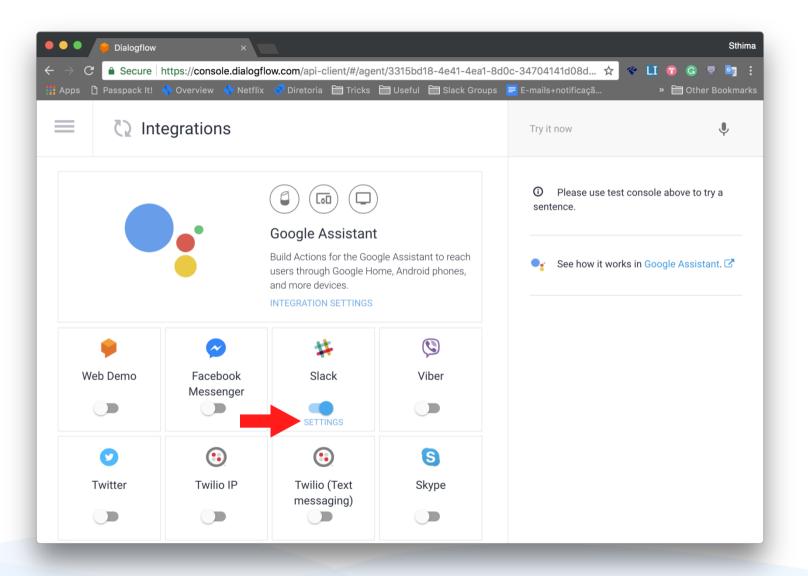


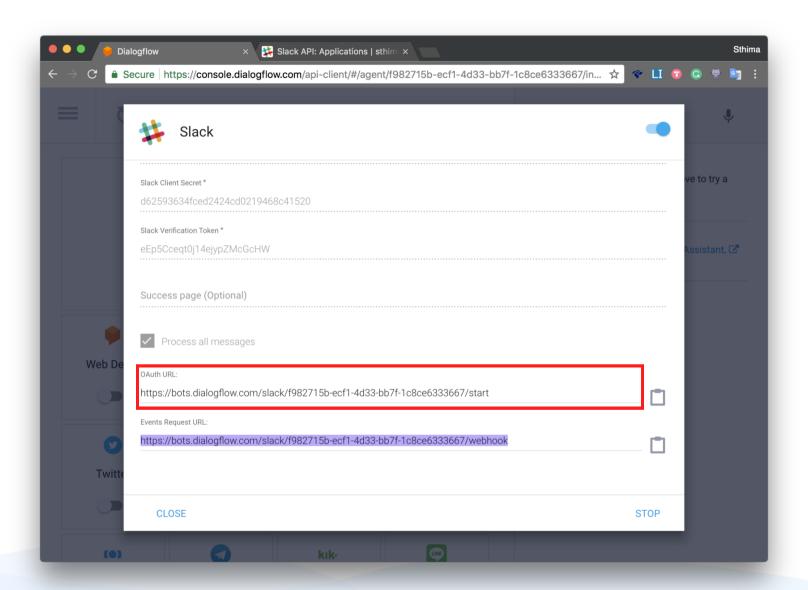


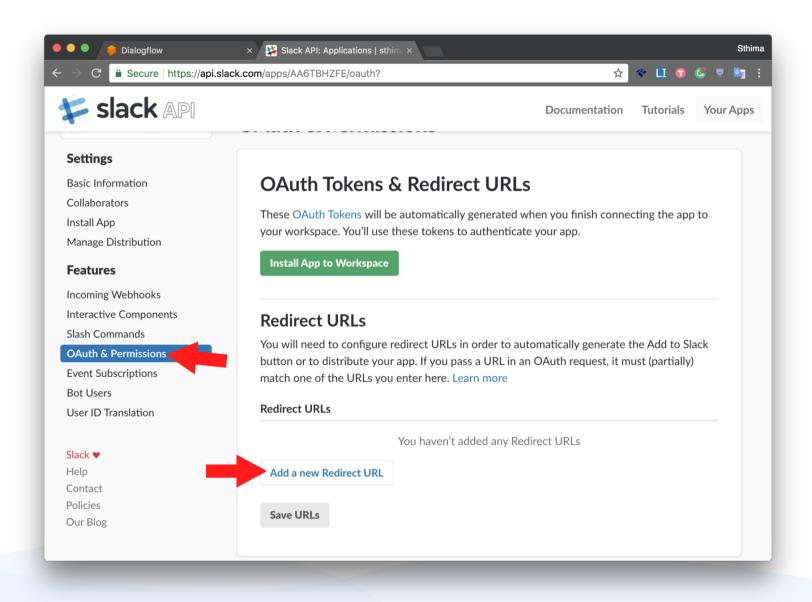


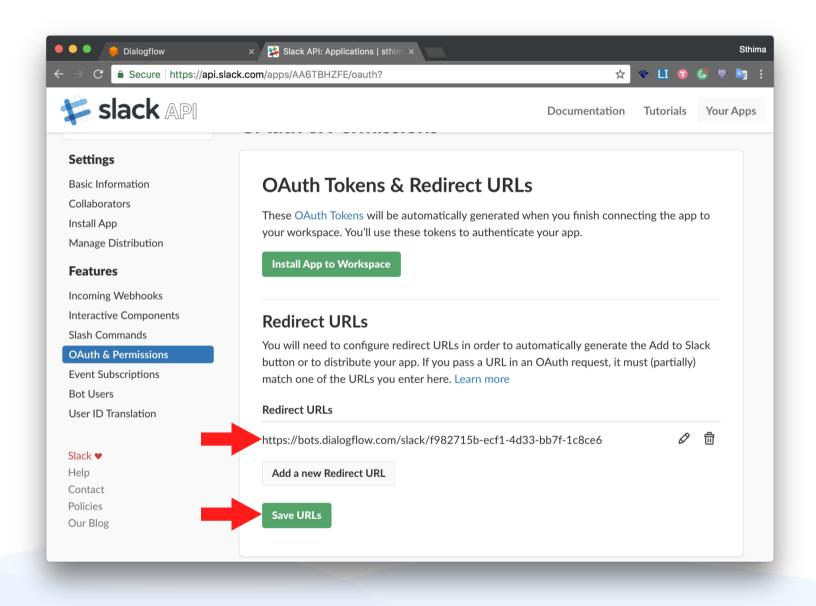


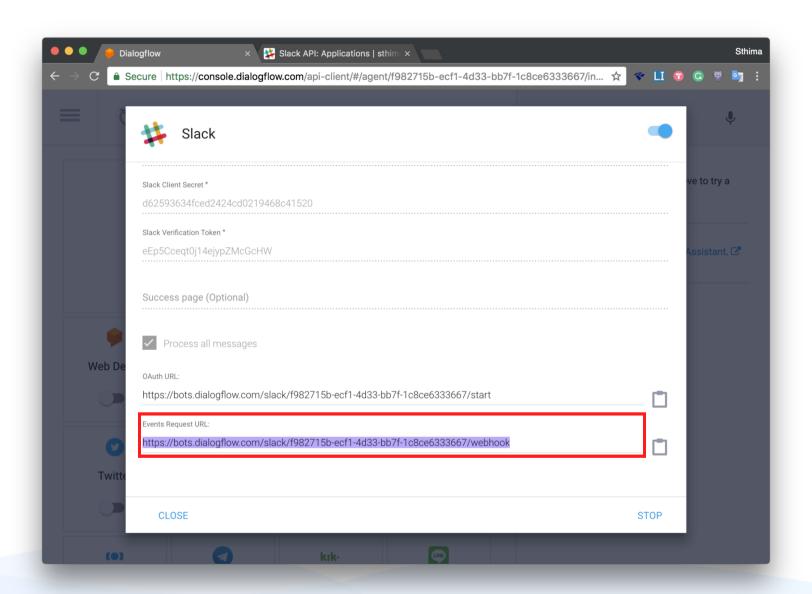


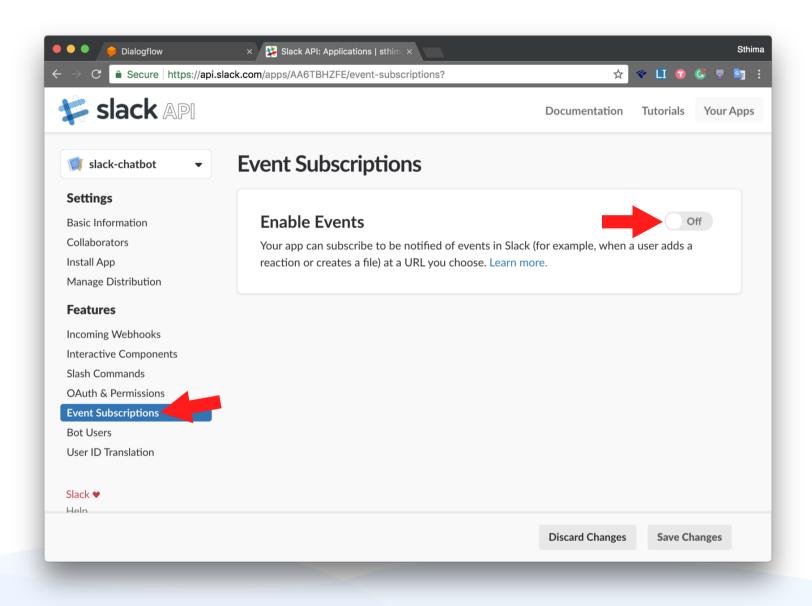


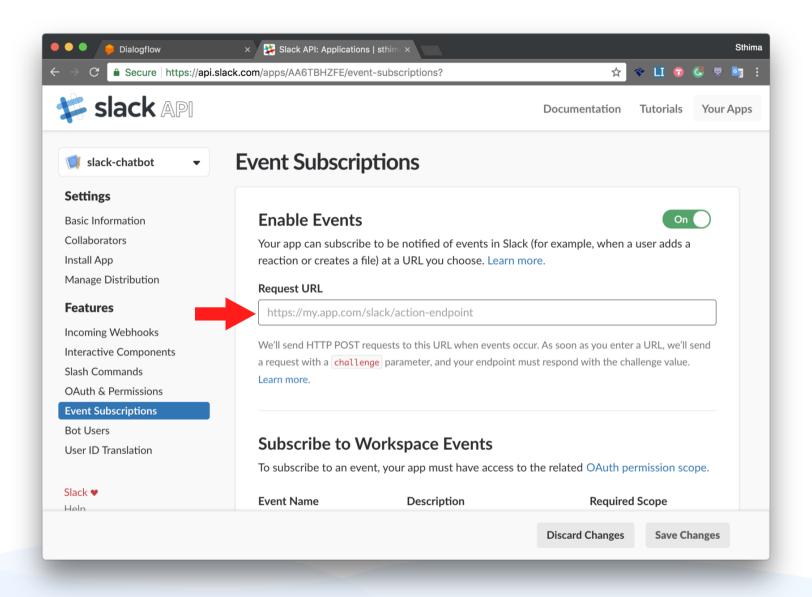


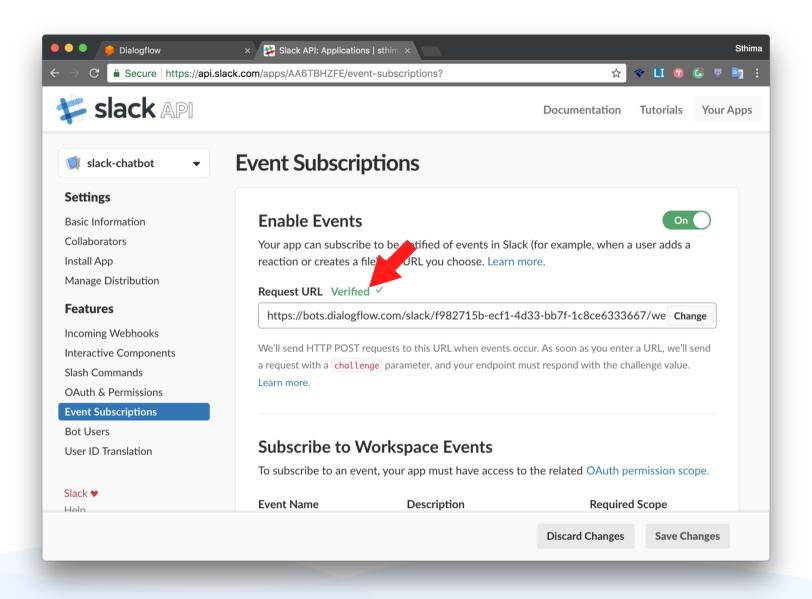


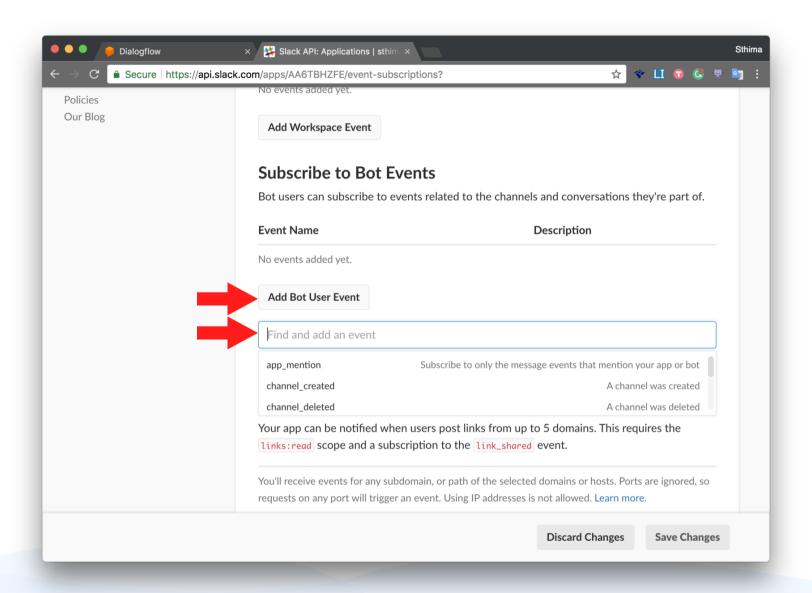


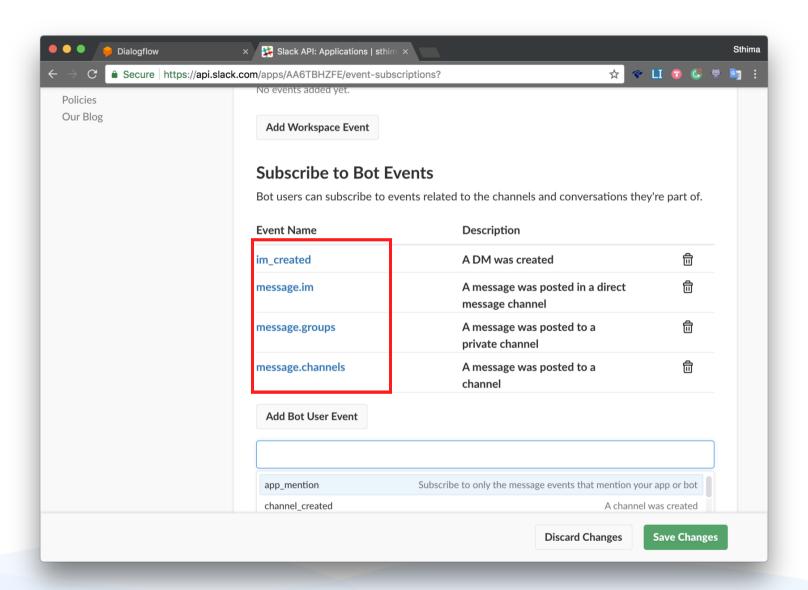


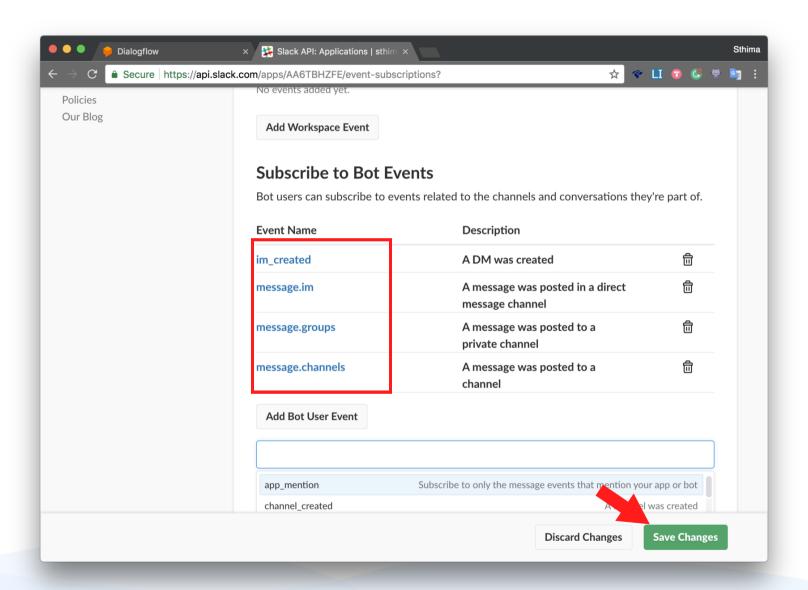


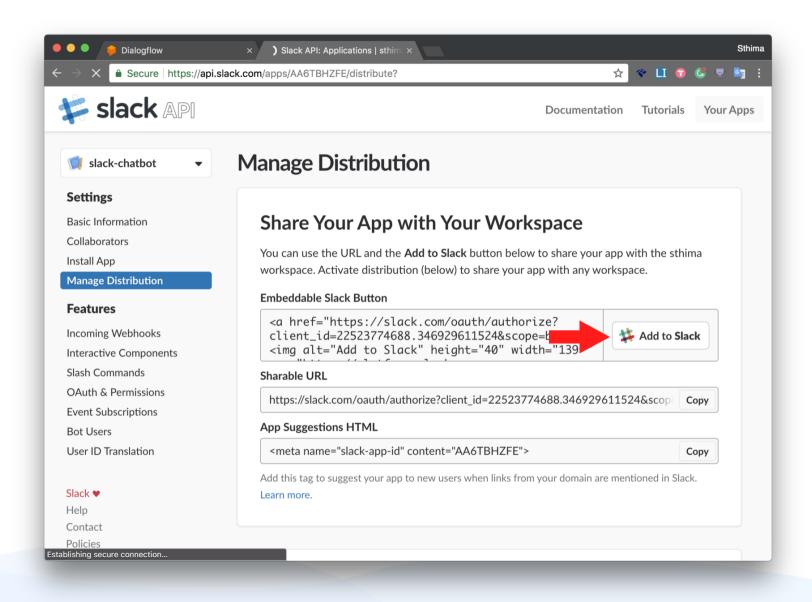


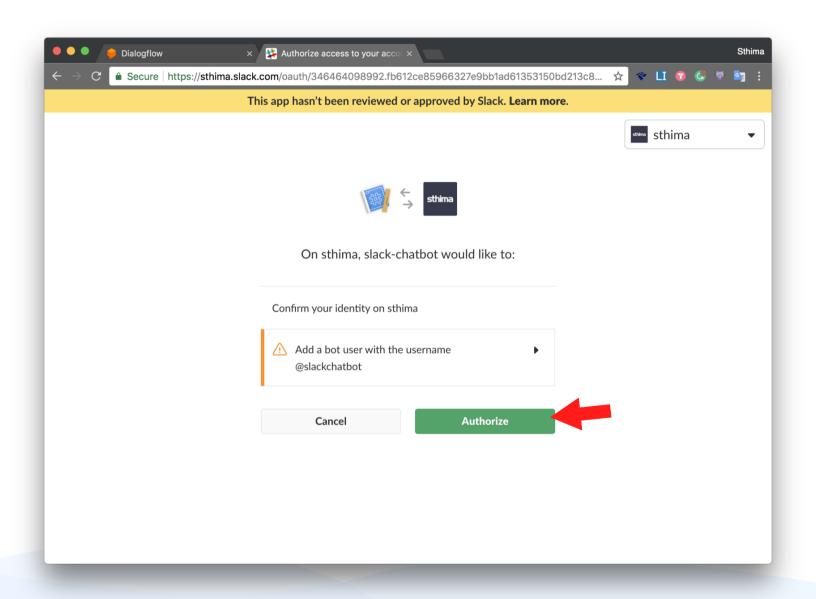


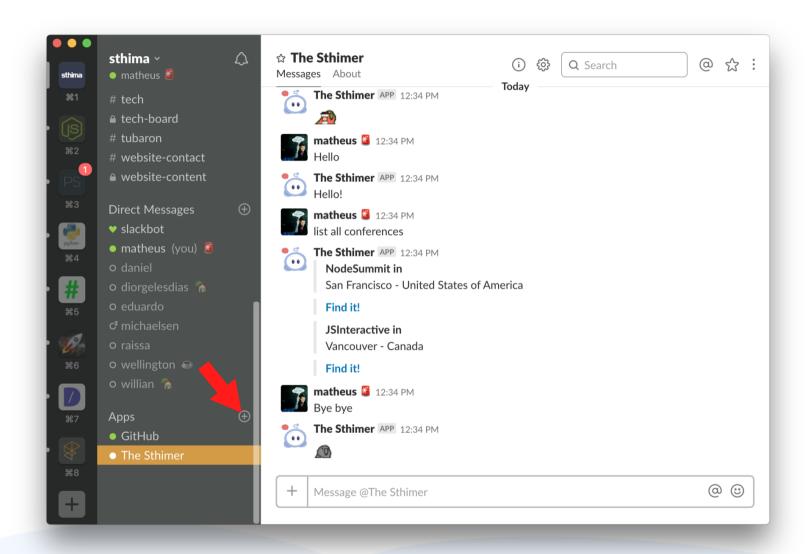


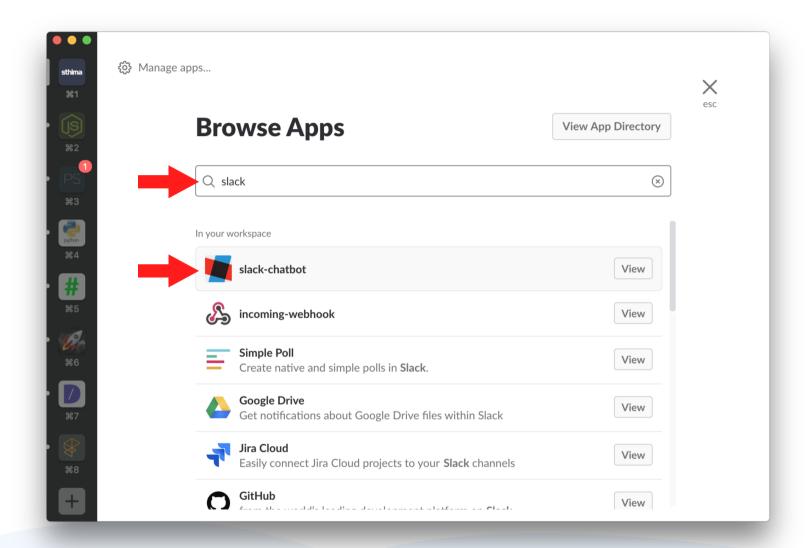


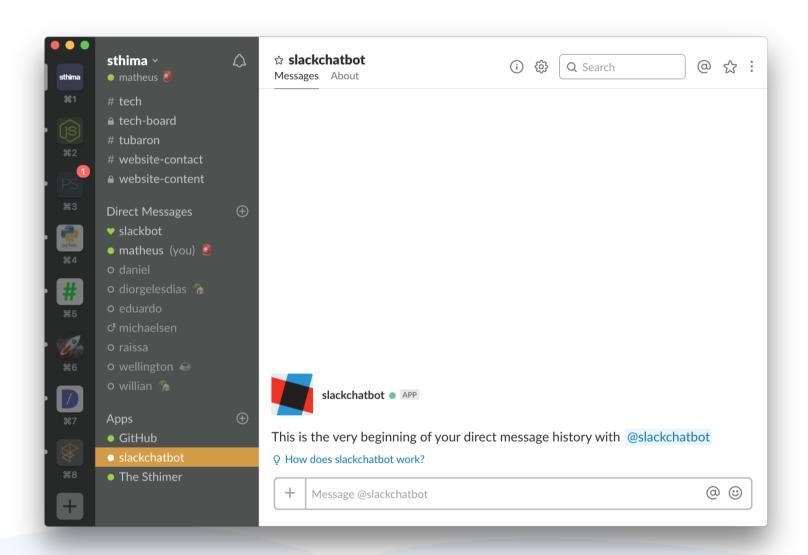


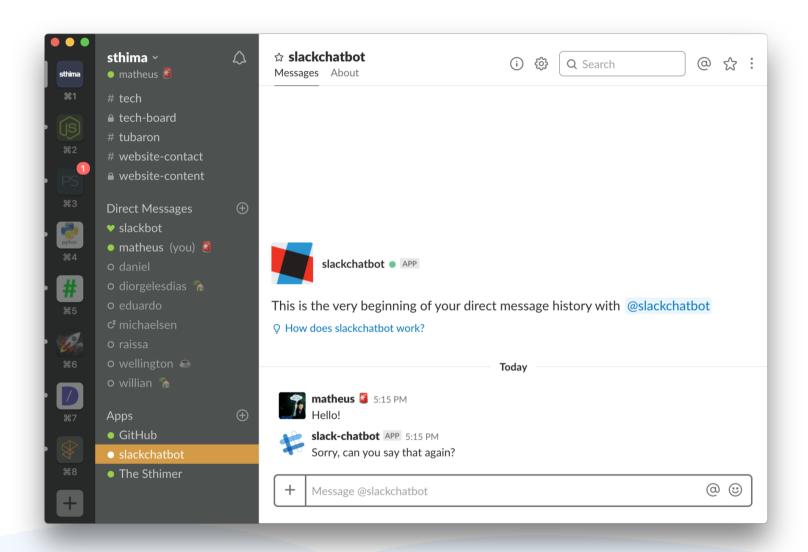




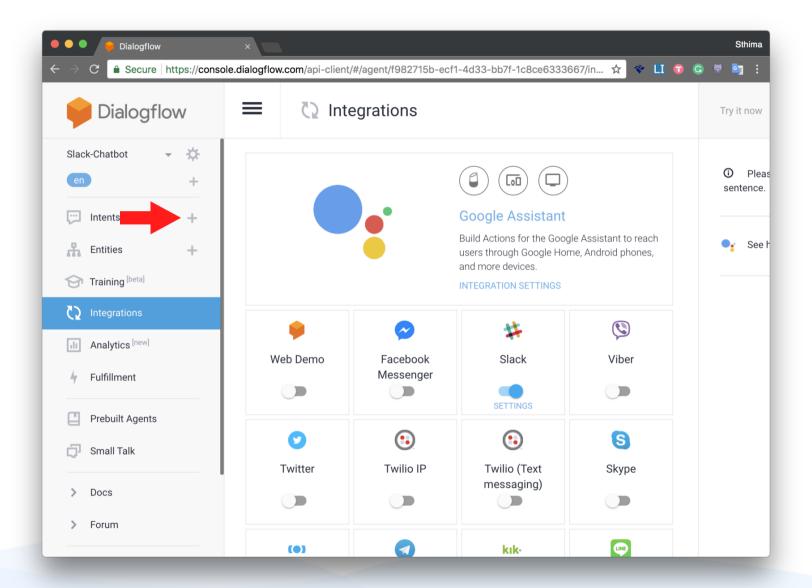


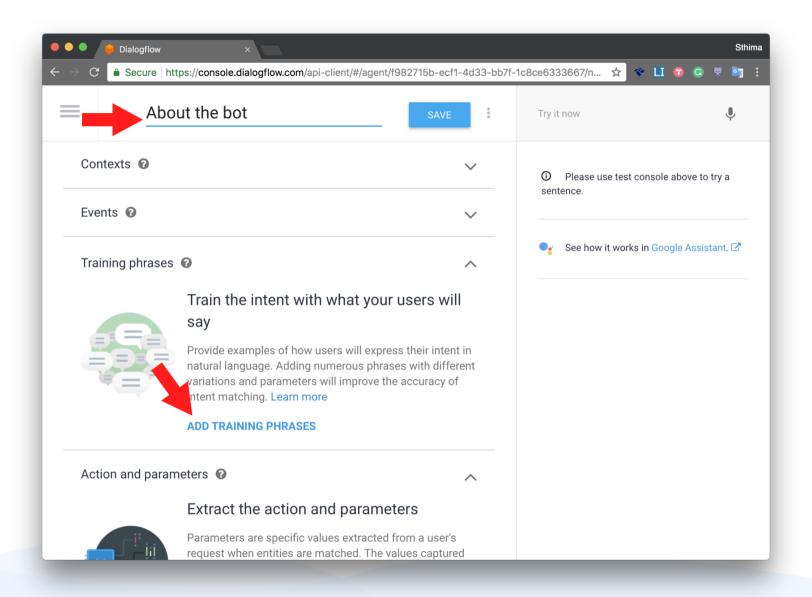


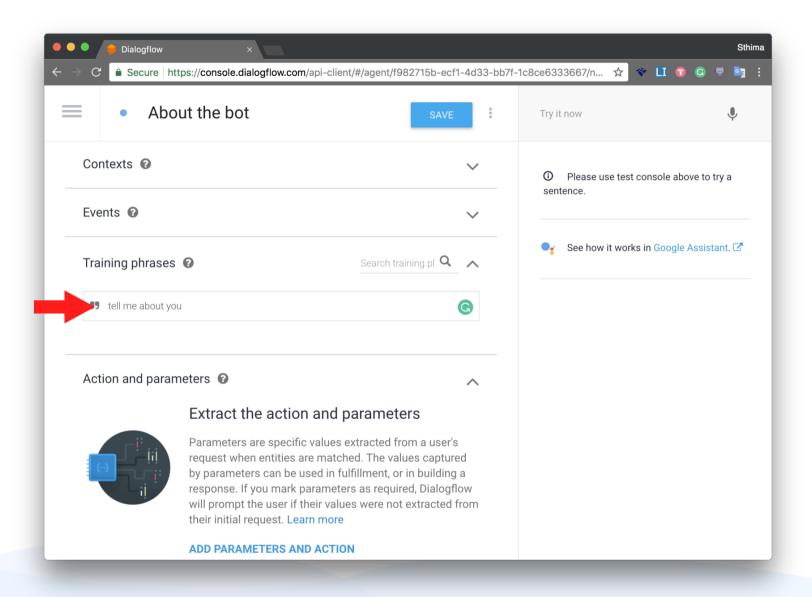


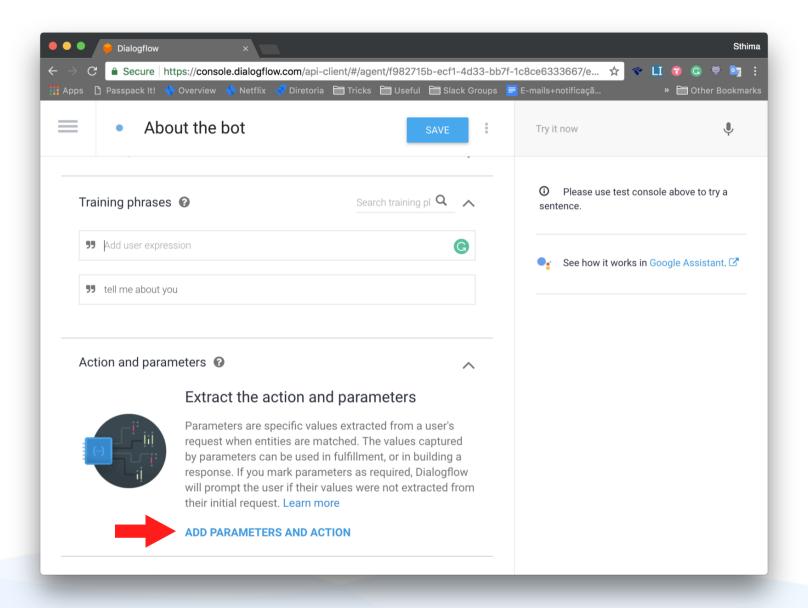


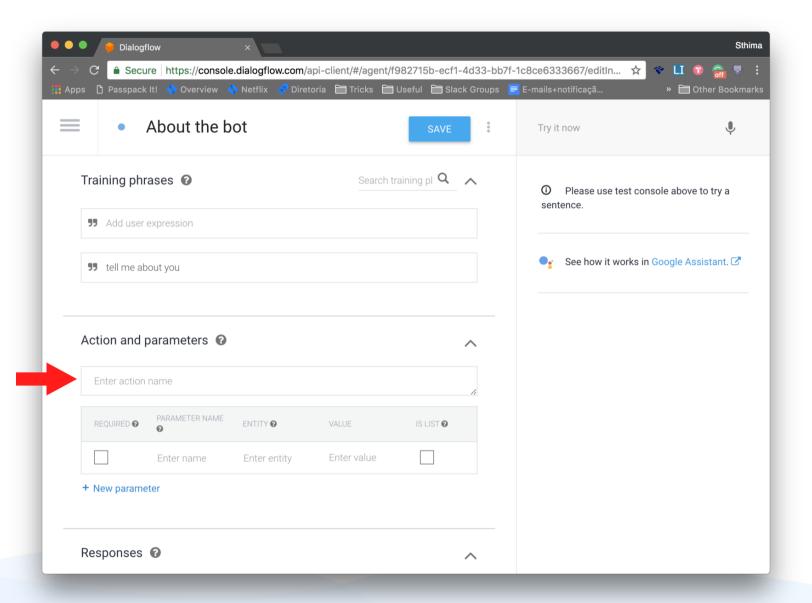
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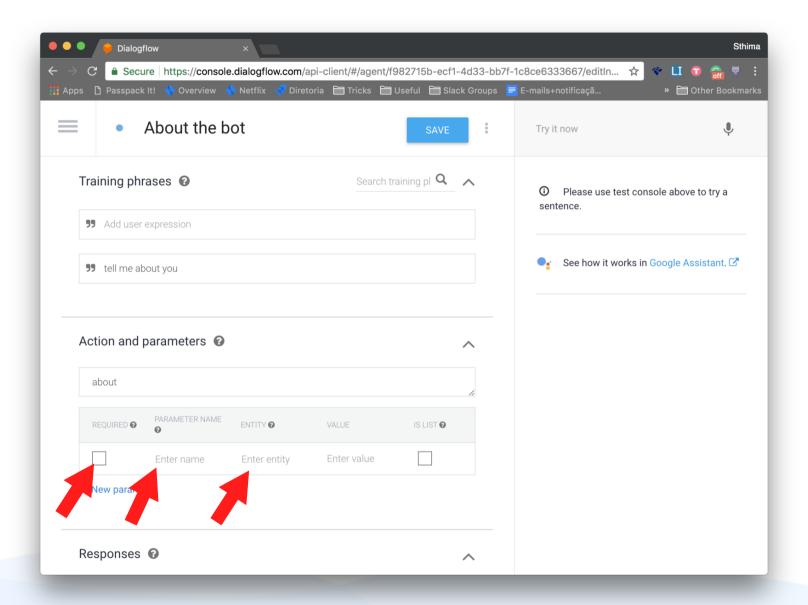


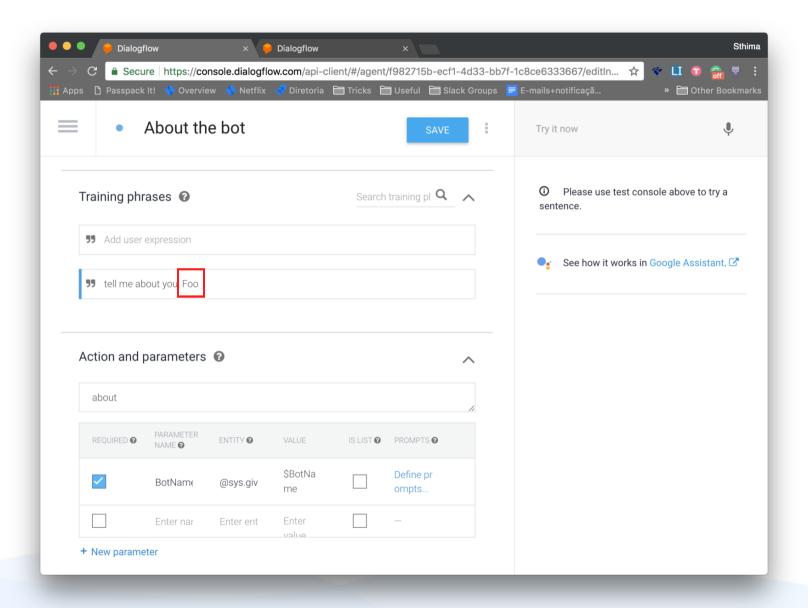


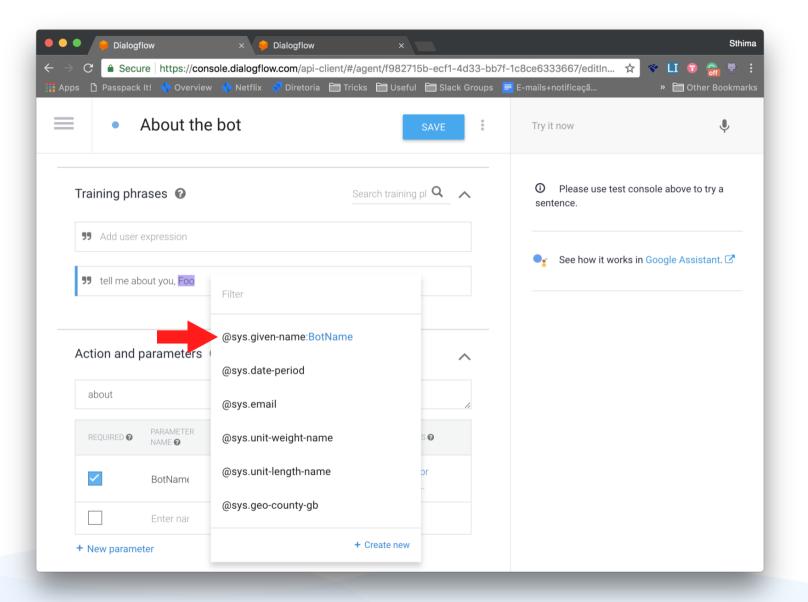


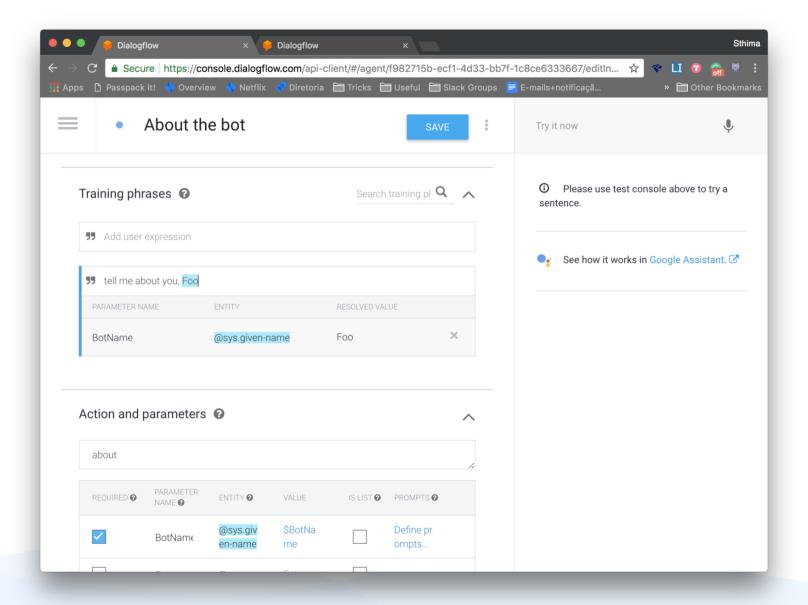


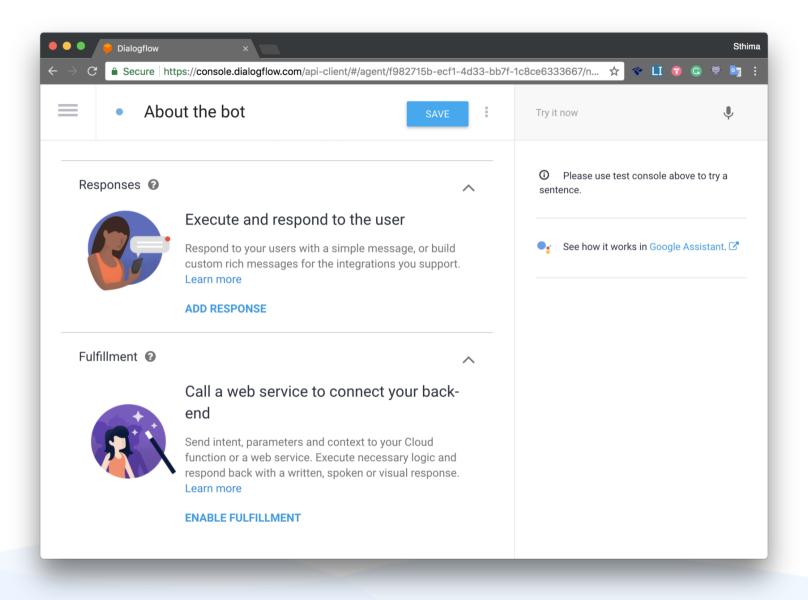


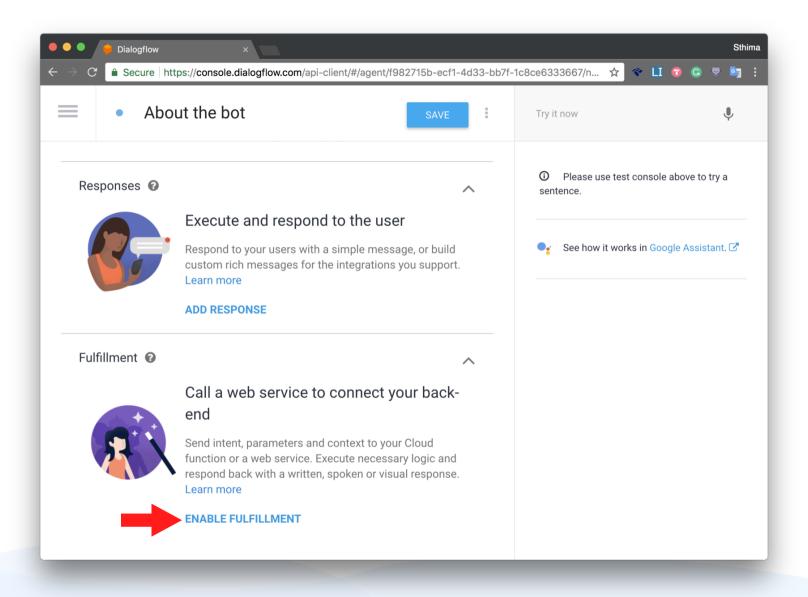


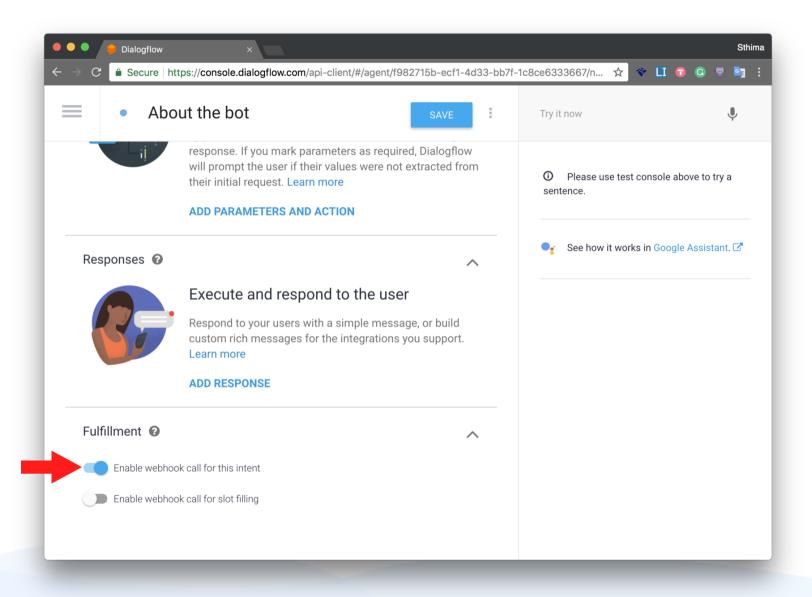




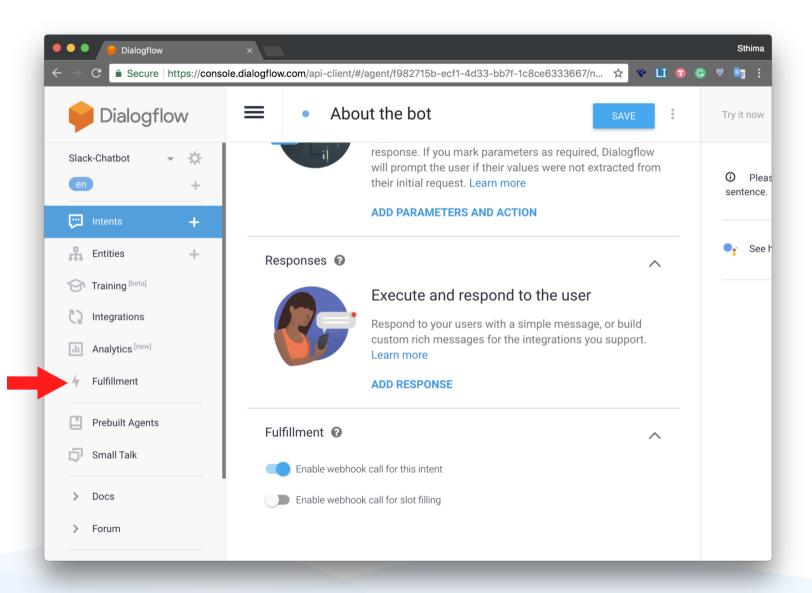


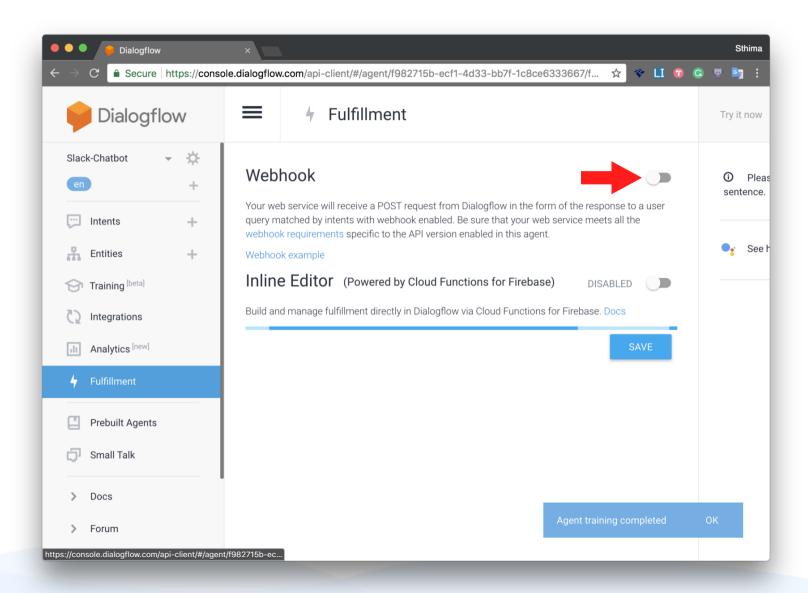


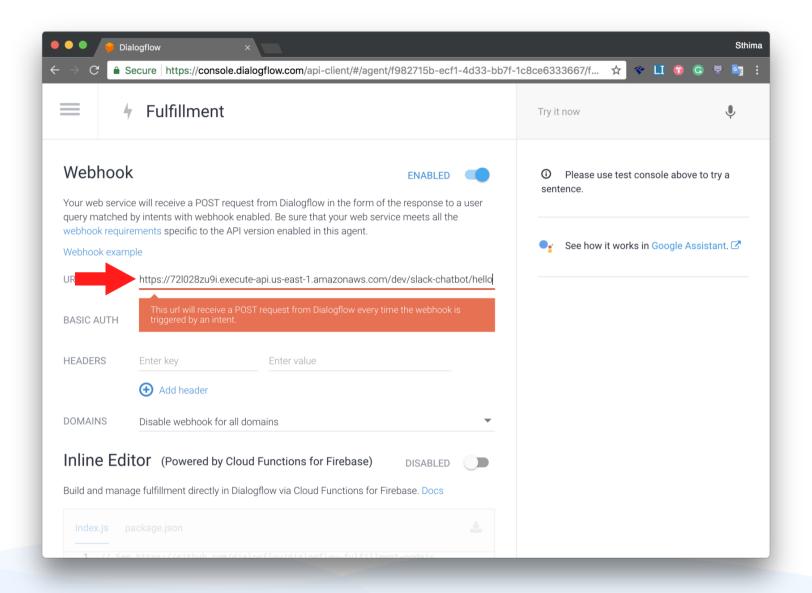




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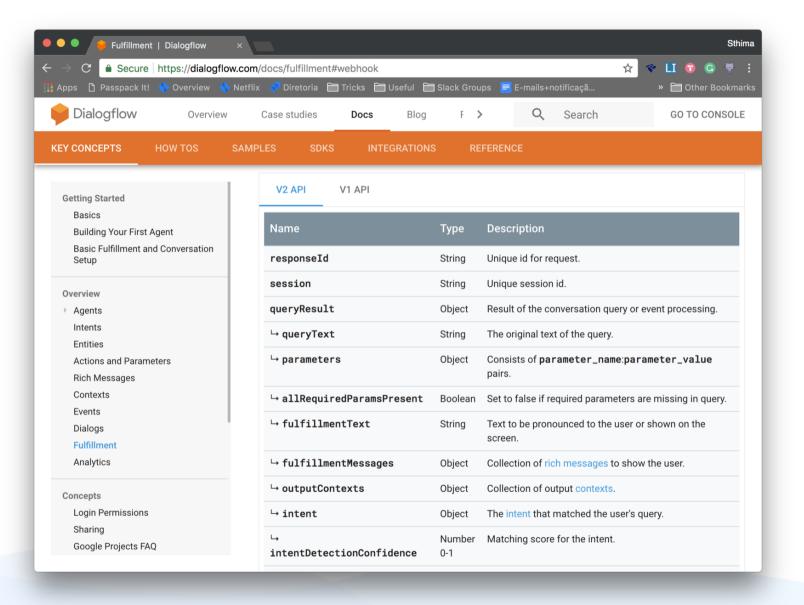


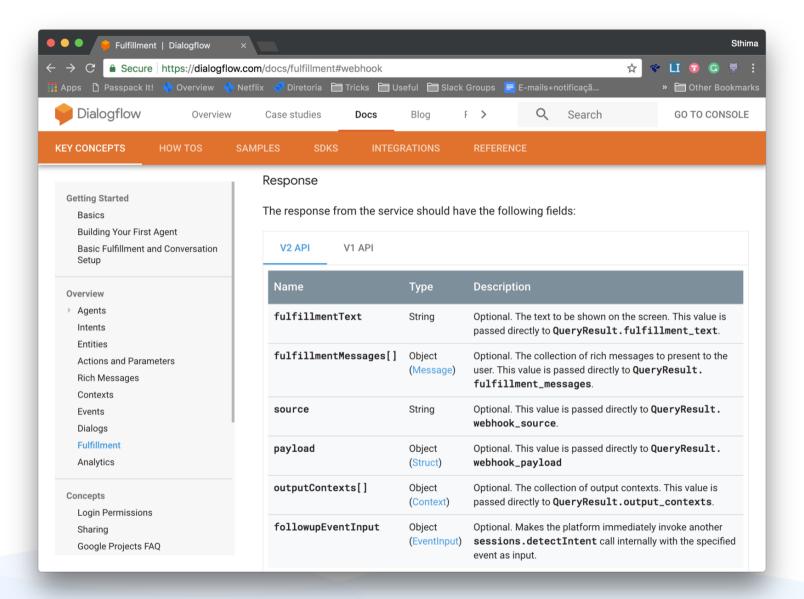


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```
service: slack-chatbot
provider:
  name: aws
  runtime: python3.6
functions:
  hello:
    handler: handler.hello
    events:
      - http:
          path: slack-chatbot/hello/
          method: post
```

```
import json
def hello(event, context):
    data = json.loads(event['body'])
    intent = data['queryResult']['action']
    bot name = data['queryResult']['parameters']['BotName']
    fulfillment text = "Sorry, I don't understand what you're saying"
    if intent == "about":
        fulfillment text = f"I'm your friendly bot named {bot name}!"
    response = {
        "statusCode": 200,
        "body": json.dumps({
            "fulfillmentText": fulfillment text
        })
    return response
```



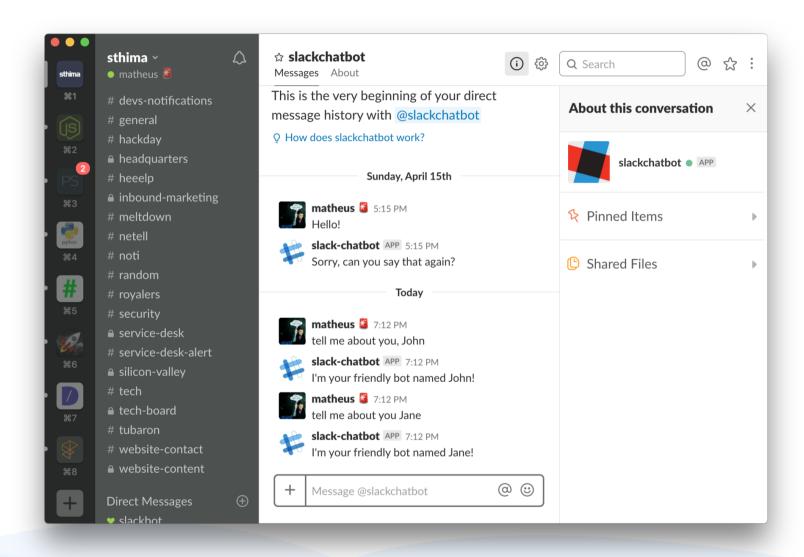


```
1. serverless deploy -v (node)
λ [workspace/sthima/slack-chatbot]
 → serverless deploy -v
Serverless: Packaging service...
Serverless: Excluding development dependencies...
Serverless: Uploading CloudFormation file to S3...
Serverless: Uploading artifacts...
Serverless: Uploading service .zip file to S3 (391 B)...
Serverless: Validating template...
Serverless: Updating Stack...
Serverless: Checking Stack update progress...
CloudFormation - UPDATE IN PROGRESS - AWS::CloudFormation::Stack - slack-chatbot-dev
CloudFormation - UPDATE IN PROGRESS - AWS::Lambda::Function - HelloLambdaFunction
CloudFormation - UPDATE COMPLETE - AWS::Lambda::Function - HelloLambdaFunction
```

[17:32:25]

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```
1. mmarchini@Matheuss-MacBook-Pro; ~/workspace/sthima/slack-chatbot (zsh)
shchatbotHelloGet
CloudFormation - UPDATE COMPLETE - AWS::CloudFormation::Stack - slack-chatbot-dev
Serverless: Stack update finished...
Service Information
service: slack-chatbot
stage: dev
region: us-east-1
stack: slack-chatbot-dev
api keys:
 None
endpoints:
POST - https://72l028zu9i.execute-api.us-east-1.amazonaws.com/dev/slack-chatbot/he
llo
functions:
 hello: slack-chatbot-dev-hello
Stack Outputs
HelloLambdaFunctionOualifiedArn: arn:aws:lambda:us-east-1:851114404050:function:slac
k-chatbot-dev-hello:3
ServiceEndpoint: https://72l028zu9i.execute-api.us-east-1.amazonaws.com/dev
ServerlessDeploymentBucketName: slack-chatbot-dev-serverlessdeploymentbucket-lre8v0c
wla78
\lambda [workspace/sthima/slack-chatbot]
                                                                       [17:32:54]
```



- Instalar Serverless e Criar projeto
- Configurar Credenciais da AWS
- Fazer deploy no AWS Lambda
- Configurar integração Slack <-> Dialogflow
- Criar Intenção no Dialogflow
- Configurar Webhook no Dialogflow
- Implementar resposta no AWS Lambda





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