



VIT-AP
UNIVERSITY

**DEPARTMENT OF COMPUTER SCIENCE AND ENGG.
CLOUD COMPUTING
CSE4001**

**PROJECT REVIEW 2
Webapp Hosting**

Academic Year: 2020-2021

Semester: Winter

Faculty Name: Dr. S.Karthikeyan

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Branch/ Class: B.Tech

School: SCOPE

Reg. No.: 18BCD7008

Outline

- Abstract
- Introduction
- Project Description
- Advantages
- Methodology
- Project Flowchart
- Project Timeline
- Project Demo
- References

Abstract

The aim of this platform is to build a web application that provides an interactive environment to the various clubs and students by providing updates regarding different events and activities.

It creates an open forum which brings together all the students of similar interests by providing the clubs and student a single point of contact and making it easier for them to apply for and manage events.

The cloud service providers include Google Cloud , MongoDB , Cron Job , Heroku and AWS will be used for this project.

Introduction

VIT-AP has a portal for everything. We have portal for payments , student data management , placements, etc. but not one for clubs.

Students receive many emails from clubs and the college regarding different events which are to occur. Clubs also have to manage a lot of data to properly interact with students and maintain a healthy participation in their events.

To make this process easier we aim to provide an interface through which clubs can effectively communicate with interested students and additionally attract more students.

Project Description

This is a SaaS(Software as a Service) platform that is build upon a PaaS(Platform as a service) and uses other services such as Storage as a Service , Software as a Service. It follows the MVT architecture. Python is the primary coding language and HTML , CSS , JS for UI creation.

The project has the following objectives:

- To build a highly portable application
- To reduce the workload of clubs and college administrators
- To follow a subscription based model to drive event registration

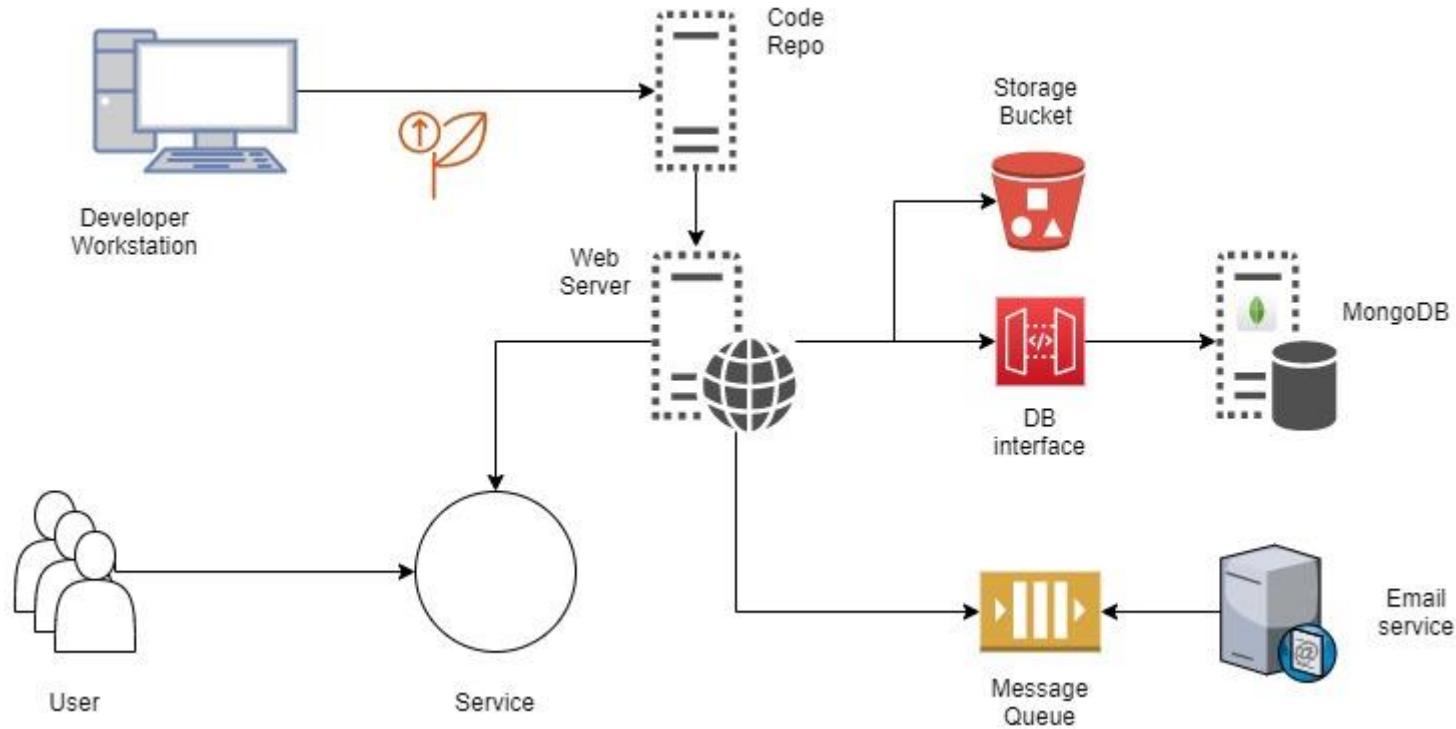
Advantages

The main advantage of this web app is that it increases the event participation in club events by following a subscription model which provides better user interaction while keeping the mails to the minimum.

Being cloud based the webapp has high portability and a mobile app can easily be made by using the same data model reducing the development time.

This also decreases the workload on the college administration and make club handling easier by abstracting the process for them.

Methodology



Modules

Database Setup - 100%

User Authentication and Management Module - 100%

Admin Module - 100%

Event Module - 100%

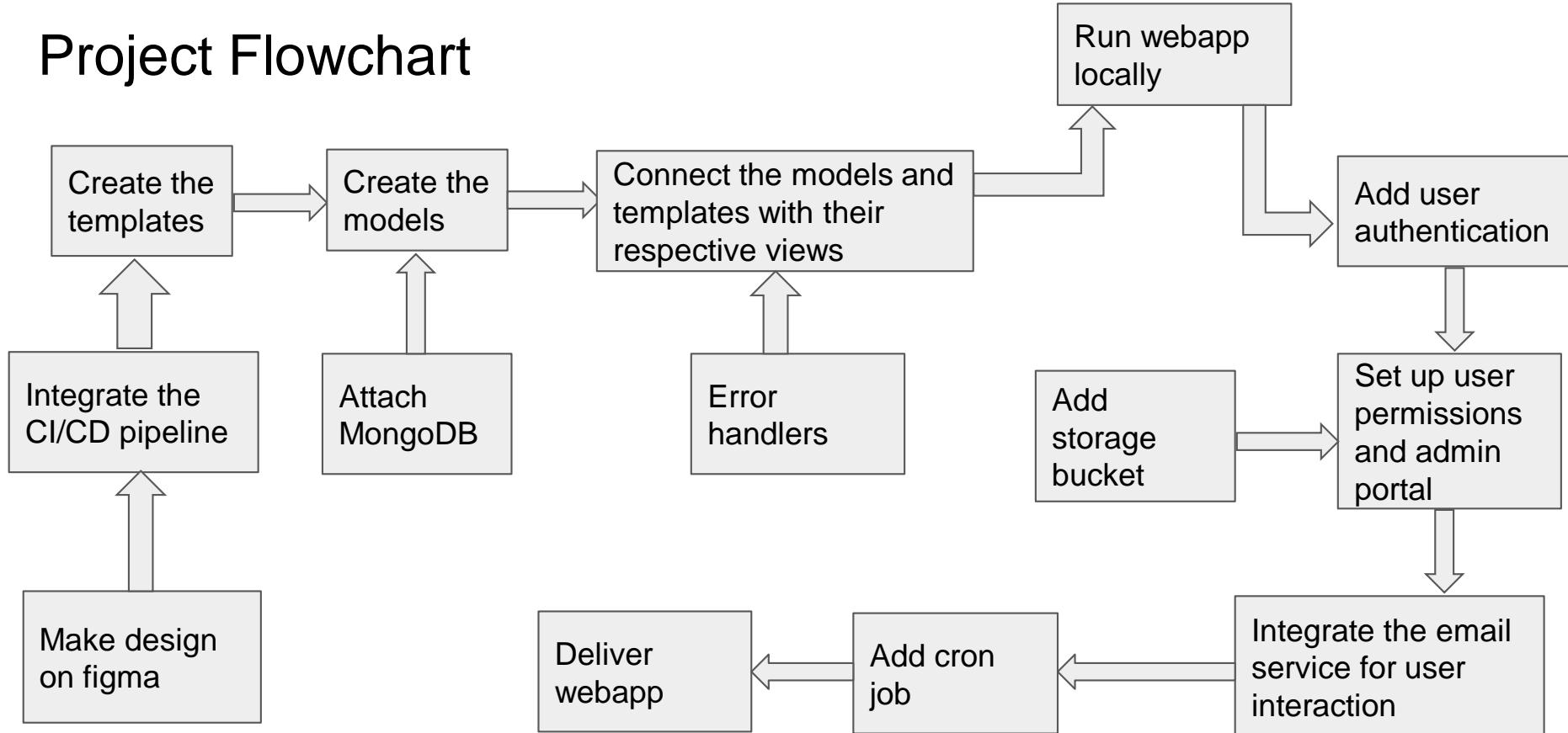
Club Module - 100%

Database Interface - 100%

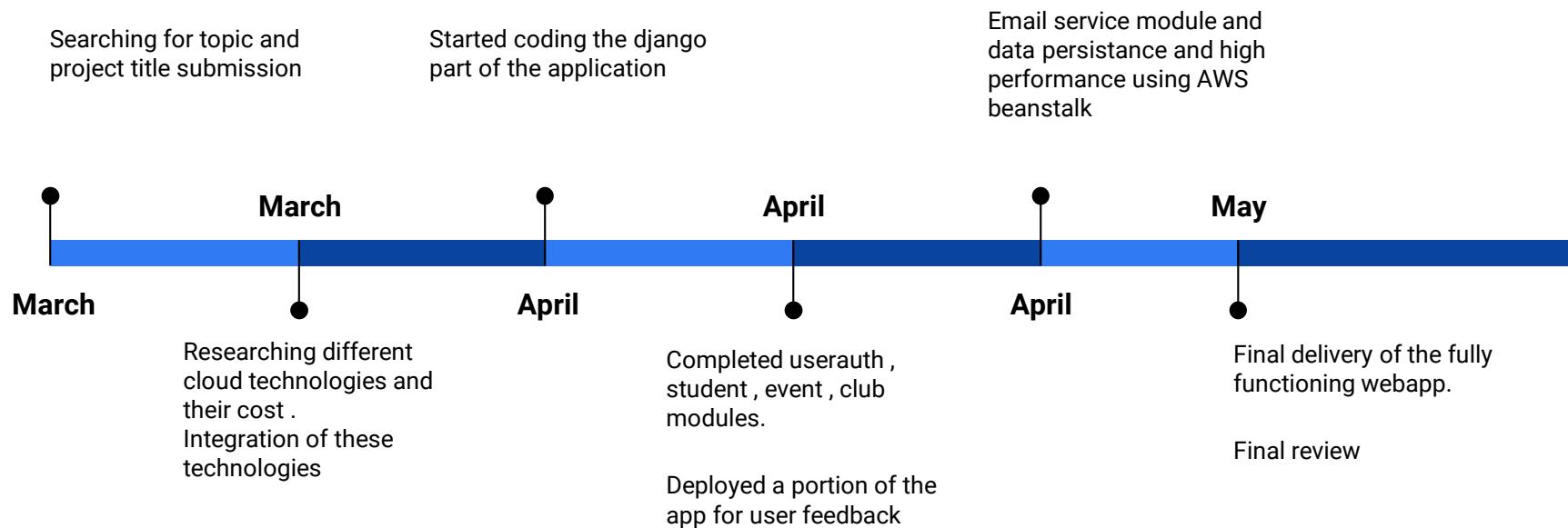
Email Service - 100%

Cron job - 100%

Project Flowchart



Project Timeline



Project Demo

The main aim of this project is to create a platform that will reduce the time club spend on sending email and other event related tasks. It will also provide college authorities a single point of contact for all clubs making the process easier for both parties.

So for this project demo first we will look at the final platform and understand all the features provided to various users. Then we will look at the final architecture implemented in this project and deep dive into each part of that architecture.

Application Demo

Landing Page

- This page is accessible to all users. When the user is login in to application the sing in button turn red to sign out. For the user to sign out
- Register with us leads to sign up page
- Events and Clubs redirect to their respective event and club pages
- Clicking the name in the navbar leads back to the home page. This is true for all the pages in the project.
- When the user is not login into the application the sign in button is shown and upon clicking that button it redirects to sign in page.
- Home button is also shown when the user is login into the application , which redirects to the custom home page for that user.

Start something that matters

Stop wasting valuable time in event registration

Register With Us



Start something that matters

Stop wasting valuable time in event registration

Register With Us



Sign Up Page

- This page is used for registration of new users onto the platform.
- As this application is VIT-AP focused , the user needs to provide the following information to create an account
 - Roll No
 - Name
 - Email I
 - Password for future login
- If a user is already a member then they can click the link provided below the image. They will be redirected to login page.
- If same email id is used twice the platform doesn't allow one to register.
- Also a email verification mail is send to all the new users and they are not allowed to login until they verify their email id's.

Sign up



Your Roll No.



Your Name



Your Email



Password

Register



[I am already member](#)

Thank You!

A confirmation email has been send to your given email id. Verify your email id to use the services of this portal

[Home Page](#)

Verify your email for Club Event Registration Portal

External

Inbox x



TechTeam <EventHandler@cloudproject-bcd7008.firebaseio.com>
to me ▾

1:44 PM (0 minutes ago)



Hello,

Follow this link to verify your email address.

https://cloudproject-bcd7008.firebaseio.com/_/auth/action?mode=verifyEmail&oobCode=pfoRDjnncy2CZ0tKV-HKTf2g1liDVf4ReFko_05s1MAAAF5vFcc6Q&apiKey=AlzaSyBEBdlqDtMjwb0SfEs1AwJGVuOxVFBjaw&lang=en

If you didn't ask to verify this address, you can ignore this email.

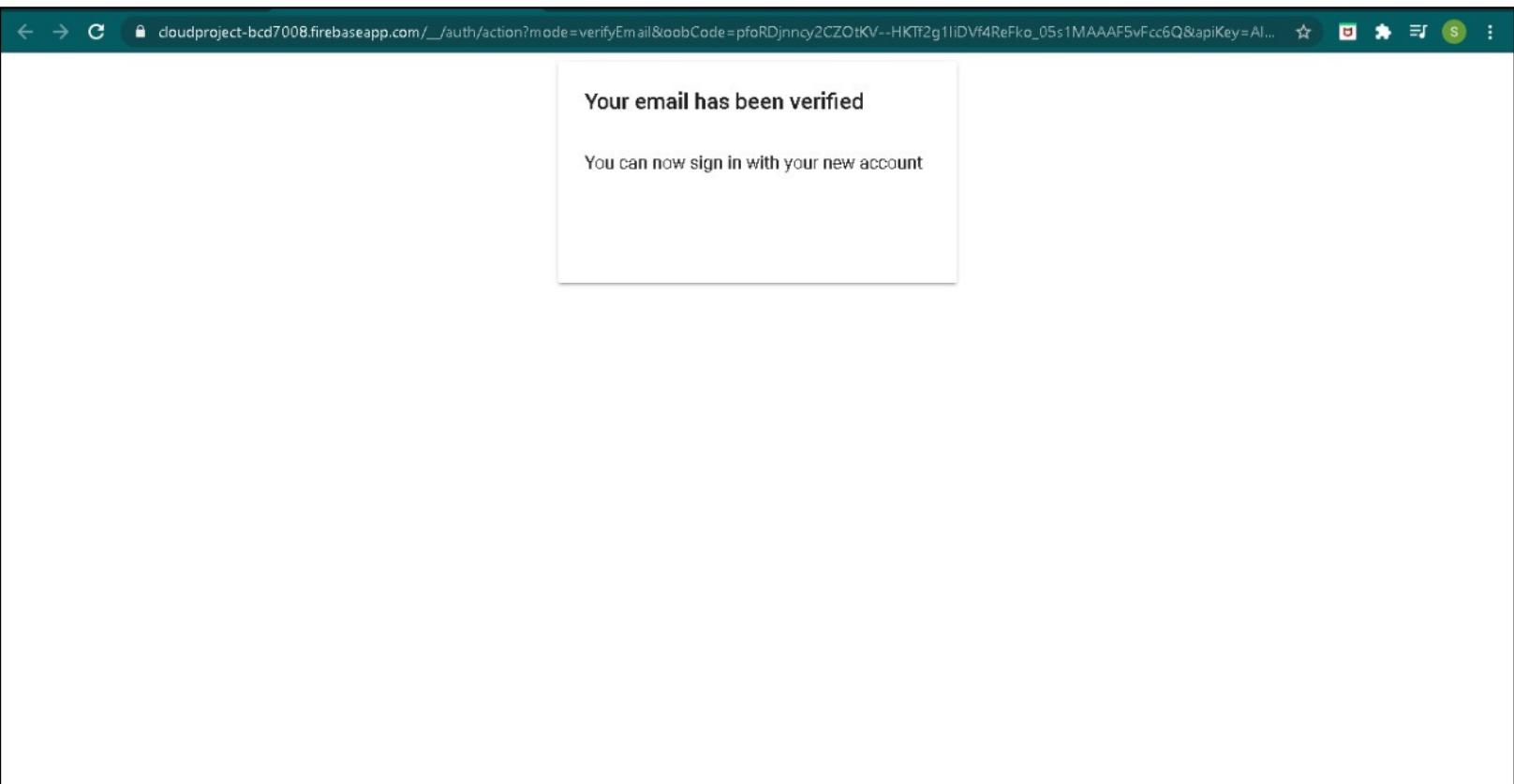
Thanks,

Your project-1011436028629 team

Reply

Forward

I have used my friends email address to perform few tasks. I have done so because my email address is already registered as an admin user and one email can be linked with only one type of user access. So I have used another persons account to display student user tasks.



Sign In Page

- The user need to give its registered and verified email Id and password to login into the system.
- If the email id is not authenticated by clicking on the link website will not allow the person to authenticate himself and throw an error.
- All users that includes Students, Clubs, College Administration will use this single sign on page.

Sign In

Your Email

Password

login



[I am not a member](#)

Invalid Username or Password

Sign In

Your Email

Password

login



[I am not a member](#)

Profile Page

- Profile Pages are loaded as per the users except admin that login into the system.
- All users are provided an option to change password on their respective profile page.
- For students they provide general information about their account and the data that is associated with their account.
- For clubs they are able to change the information that will be shown on their page to other users and also upload new club posters.
- Admins are provided the change password option on their home page itself as there is no separate profile page for them.



Kathal Aditya
Rajendra

Information

Email

rajendra.18bcd7008@vitap.ac.in

ID

18BCD7008

Student Profile Page

Upload Poster

(JPEG , PNG format accepted)

 No file chosen

(Please upload the poster to make the club registration button visible)

Register Club

Club Name

Club Email

Discord Link

Instagram Link

Linkedin Link

Telegram Link

Twitter Link

Whatsapp Link

Youtube Link

Club Description

Developer Student Clubs are university based community groups by Google for students interested in Google developer technologies. DSC is a global community that welcomes students from all undergraduate or graduate programs with an interest in growing as a developer are welcome. By joining a DSC, students grow their knowledge in a peer-to-peer learning environment, build solutions for local businesses and their community and enhance their professional network.

Club Profile Page

Events Page

- This page shows all the events that are live on the platform.
- For users that authenticate themselves with the platform and have subscribed to any club , the events of these clubs are shown in preference to the others.
- For un authenticated users register button click will redirect them to the login page.
- View more for both the users will open a detailed view of the event. This link can also be shared by clubs for quick reference to their event.
- For events in which register button is not shown that indicates the user has already registered for that event or registration for that event are closed.

Subscribed Club Events

Login to view subscribed clubs events

All Events



Android Study Jam



Expert Panel



BITBYBIT



CN

For un authenticated user

Subscribed Club Events



Android Study Jam

GDSC

[View More](#)



Expert Panel

GDSC

[View More](#)

[Register](#)



BITBYBIT

GDSC

[View More](#)

[Register](#)



CN

GDSC

[View More](#)

[Register](#)



For authenticated users

All Events



Android Study Jams
The Introduction
29th November 2020, 6:00 pm onwards
Speaker : Atreesh Kiran



Android Study Jam
GDSC

[View More](#)



Developer Student Clubs
Get it done with the Experts
Date : 15th Nov, Sunday
Time : 5PM

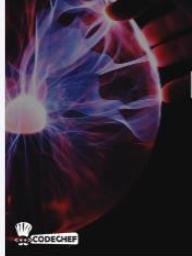
 + +

Expert Panel
GDSC

[View More](#) [Register](#)



Developer Student Clubs
Participate in our Contest
BIT-BY-BIT
5:00 PM
January 20th

BITBYBIT
GDSC

[View More](#) [Register](#)

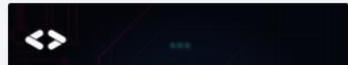


Event sponsor
CODING NINJAS



CN
GDSC

[View More](#) [Register](#)



All Events

Event Page

- Event pages shows every detail about the event that is needed to be known to the user and provided by the club.
- Clubs can also close the event even before its last date.
- User are required to login to register for an event.
- If a user is already registered then un register option is shown.
- Email is send upon successful event registration.
- Email is send using a dummy account setup for time being.



BITBYBIT

ClubName: GDSC

EventLocation: VIT-AP

EventStartTime: June 30, 2021, 8:34 p.m.

EventEndTime: June 17, 2021, 8:34 p.m.



[Login](#) to register for the event



Event Details



BITBYBIT

ClubName: GDSC

EventLocation: VIT-AP

EventStartTime: June 30, 2021, 8:34 p.m.

EventEndTime: June 17, 2021, 8:34 p.m.



[Login](#) to register for the event



About the Event

Learn the basics of competitive coding

After clicking the down arrow



BITBYBIT

ClubName: GDSC

EventLocation: VIT-AP

EventStartTime: June 30, 2021, 8:34 p.m.

EventEndTime: June 17, 2021, 8:34 p.m.



Register



For authenticated user

Microsoft Windows [Version 10.0.18363.1440]
(c) 2019 Microsoft Corporation. All rights reserved.

```
C:\Users\Ak\Desktop\django_project\cloutheroku>c:/Users/Ak/Desktop/django_pr  
oject/CloudProject/sandbox/Scripts/activate.bat  
  
(sandbox) C:\Users\Ak\Desktop\django_project\cloutheroku>py eventreceiver.py  
  
[*] Waiting for messages:  
[x] Received b'rajendra.18bcd7008@vitap.ac.in'
```

Queue Update upon clicking register and Email

Subscription Email from VIT-AP club tech team External Inbox x



[REDACTED] via sendgrid.net
to me ▾

2:32 PM (1 minute ago)



Thank you

Your registration for the event has been confirmed

Reply

Forward



BITBYBIT

ClubName: GDSC

EventLocation: VIT-AP

EventStartTime: June 30, 2021, 8:34 p.m.

EventEndTime: June 17, 2021, 8:34 p.m.



[Unregister](#)



When already registered



Android Study Jam

ClubName: GDSC

EventLocation: Pune

EventStartTime: June 15, 2021, 1:41 p.m.

EventEndTime: June 16, 2021, 1:41 p.m.



Registrations for this event are closed



Event when registration is closed

Clubs Page

- The clubs age is only accessible to students and not club and admin users.
- The page first lists all the subscribed club and then all clubs.
- If subscribe button is not shown indicates that the user has already subscribed to the club

Subscribed Club

Login to view subscribed clubs

All Clubs



Open Source Community



For un authenticated user

Subscribed Club



Google Developers

GDSC

[View More](#)



All Clubs



Google Developers



Open Source Community



For authenticated user

All Clubs



Google Developers

GDSC

[View More](#)



Open Source Community

[View More](#) [Subscribe](#)



Software Freedom Day
2020

Null Chapter

[View More](#) [Subscribe](#)



Be a nerd club

[View More](#) [Subscribe](#)



All Clubs

Club Page

- This page provided detail information about a club.
- The content of this page can be changed by respective clubs from their profile pages.
- This page is accessible for only student users.
- For authenticated users it gives and option of subscribe and un subscribe.
- For un authenticated users it provides and option to login upon which the aforementioned options will be provided.
- Email is send whenever a user subscribes to a club on behalf of that club.
- The email template is HTML based. So clubs can design a html view of their email and make it more interactive.
- A list of all active and past events is also provided in the club summary. This list is system generated and clubs do not need to handle this part.

GDSC



Login to subscribe

About Us

Developer Student Clubs are university based community groups by Google for students interested in Google developer technologies. DSC is a global community that welcomes students from all undergraduate or graduate programs with an interest in growing as a developer are welcome. By joining a DSC, students grow their knowledge in a peer-to-peer learning environment, build solutions for local businesses and their community and enhance their professional network.

Upcoming Events

[Android Study Jam](#)

[Expert Panel](#)

[BITBYBIT](#)

[CN](#)

Club Page for Unauthenticated users

GDSC

[Unsubscribe](#)

About Us

Developer Student Clubs are university based community groups by Google for students interested in Google developer technologies. DSC is a global community that welcomes students from all undergraduate or graduate programs with an interest in growing as a developer are welcome. By joining a DSC, students grow their knowledge in a peer-to-peer learning environment, build solutions for local businesses and their community and enhance their professional network.

Upcoming Events

[Android Study Jam](#)[Expert Panel](#)[BITBYBIT](#)[CN](#)[Mainframe](#)

Past Events

There are no past events at the moment. Please check again soon.

Authenticated user || Already subscribed

Open Source Community

[Subscribe](#)

About Us

The Open Source Community, is a technical club formed by the open source tech enthusiasts. Our major goal is to write free software and to collaborate with student developers, to create a community of excellent programmers. Innovation is what we aim to achieve. We also help student developers to gain an exposure to the competitive world by conducting Hackathons, hands-on workshops, guest lectures and other tech related activities. We are now part of Mozilla Campus Clubs! Currently we have 236 club members (162-current + 74-in the past), 15+ workshops conducted till date, 10+ events, and many more to go.

Upcoming Events

There are no upcoming events at the moment. Please check again soon.

Past Events

There are no past events at the moment. Please check again soon.

Authenticated user || Non subscribed club

```
(sandbox) C:\Users\Ak\Desktop\django_project\cloudheroku>py clubreceiver.py  
[*] Waiting for messages:
```



Queue is Empty

```
(sandbox) C:\Users\Ak\Desktop\django_project\cloudheroku>py clubreceiver.py  
[*] Waiting for messages:  
[x] Received b'rajendra.18bcd7008@vitap.ac.in'
```



After clicking subscribe

Subscription Email from VIT-AP club tech team External Inbox x

[REDACTED] via sendgrid.net [REDACTED] (0 minutes ago)

Thank you

Your Subscription to club has been confirmed

Reply

Forward

Email Received

Create Club Page

- For club creation the administration needs to provide following information :
 - Club Name
 - Club Email
 - Club Description
 - Poster Image
- A one time password is generated for the clubs to login into their newly created account and change password to their password of choice.
- This password is generated using UUID4.
- If the one time password is lost the whole needs to start all over again.

Upload Poster
(JPEG , PNG format accepted)

 No file chosen

(Please upload the poster to make the club registration button visible)

Register Club

Club Name

Club Email

Club Description

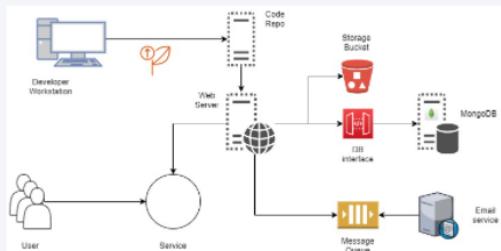
Club Registration Form

Image Upload Successful

OK

Upload Poster

(JPEG , PNG format accepted)

 cloud.jpg

(Please upload the poster to make the club registration button visible)

Register Club

Club Name

Dummy Club

Club Email

dummy@gmail.com

Club Description

Dummy Club generated for testing purpose

After uploading Poster

Upload Poster

(JPEG , PNG format accepted)

 No file chosen

(Please upload the poster to make the club registration button visible)

One Time Password X

e5a2cbfc-8712-4565-9d7d-af786ebca1a3

This is a one time password for the club. If you lose it contact admin for assistance.

Club Email

Club Description

One Time Password Generation



Delete



/ of India

Android

Delete



Delete

Dummy Club

Delete

Club Visible in All clubs

Create Event Page

- Clubs need to fill all the required data in the form provided on the webpage.
- Event Poster needs to be uploaded first
- Then all other information can be filled and the form can be submitted.
- Event will be published instantly on all pages.

Upload Poster
(JPEG , PNG format accepted)

No file chosen



(Please upload the poster to make the event registration button visible)

Register Event

Event Name

Event Start Time

Event End Time

Event Location

Instagram

Twitter

Linkedin

Event Registration Form

Upload Poster

(JPEG , PNG format accepted)

 Byju's Teaserpng Developer Student Clubs
VIT-AP

Announcing our second collaboration with



Details out soon!

cloudproject-bcd.herokuapp.com says

Image Upload Successful

Event Name

Event Start Time

 dd-----yyyy --:-- --

Event End Time

 dd-----yyyy --:-- --

Event Location

Instagram

Twitter

Linkedin

Event Description

Poster Upload



Mainframe

[Delete](#)[Participants](#)[Stop Registration](#)

An event card for a collaboration with BYJU'S. It features the BYJU'S logo and the text "The Learning App". Below the logo is a cartoon illustration of a person sitting at a desk with books and a lamp. The text "Details out soon!" is at the bottom. A red "Delete" button is at the bottom left.

Dummy

[Delete](#)[Participants](#)[Stop Registration](#)

Event visible to all Users of the platform

Student Home Page

OutOfTheWorldEvents.com

EVENTS

CLUBS

HOME

Profile

SIGNOUT

Registered Events



BITBYBIT

GDSC

[View More](#)

Club Home Page

- This page provides all the options that are available for a event to the club.
- It displays all the live events for that club.
- They can start and stop registration for a event
- They can delete the event
- They can download the list of participants for that event.
- All queries are handled in the same page except participation list. Here the user is redirected to a new web page that shows the list of all the participants. Also it provides to download the same in excel and csv format.

Live Events



Android Study Jam

[Delete](#)[Participants](#)[Start Registration](#)

Expert Panel

[Delete](#)[Participants](#)[Stop Registration](#)

BITBYBIT

[Delete](#)[Participants](#)[Stop Registration](#)

CN

[Delete](#)[Participants](#)[Stop Registration](#)

Download Participation List Page

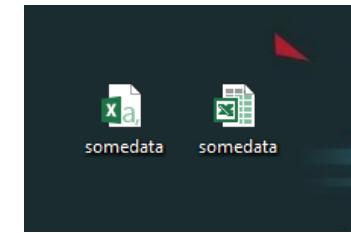
OutOfTheWorldEvents.com

[Export to Excel](#) [Export to CSV](#)

Id	Name	Email
18BCD7008	Kathal Aditya Rajendra	rajendra.18bcd7008@vitap.ac.in

FILE HOME INSERT PAGE LAYOUT FORMULAS DATA REVIEW VIEW somedata [Protected View] - Excel
PROTECTED VIEW Be careful—files from the Internet can contain viruses. Unless you need to edit, it's safer to stay in Protected View. Enable Editing

A	B	C	D	E	F	G	H	I	J	K	L
1	Id	Name	Email								
2	18BCD7008	Kathal Aditya Rajendra	rajendra.18bcd7008@vitap.ac.in								
3											
4											
5											



CSV File

Cut Copy Format Painter Clipboard

Mangal 11 A A Wrap Text General

B I U Alignment Merge & Center Number

A	B	C	D	E	F	G	H	I
1	Id	Name	Email					
2	18BCD7008	Kathal Aditya Rajendra	rajendra.18bcd7008@vitap.ac.in					
3								
4								
5								

Excel File

Admin Home Page

OutOfTheWorldEvents.com

ADMIN

+ CREATE CLUB

CHANGE PASSWORD

SIGNOUT

Clubs

 Google Developers

GDSC

Delete



Open Source Community

Delete



Null Chapter

Delete



Be a nerd club

Delete



Change Password Page

OutOfTheWorldEvents.com

■■■ EVENTS

■■■ CLUBS

HOME

PROFILE

SIGNIN

Password Reset Mail Send

Password reset mail has been send to your registered email Id.

Reset your password for Event Registration Portal

External

Inbox X



TechTeam <EventHandler@cloudproject-bcd7008.firebaseio.com>

3:59 PM (2 minutes ago)



to me ▾

Hello,

Follow this link to reset your project-1011436028629 password for your chandran.18bcd7044@vitap.ac.in account.

https://cloudproject-bcd7008.firebaseio.com/_auth/action?mode=resetPassword&oobCode=9XTNNQWRy37naXyoPzsZeBDy1h6Kl1VRZOGc_fniuGAAAAF5vNLajA&apiKey=AlzaSyBEBdgDtMjwb0SfE-s1AwJGVuOxVFBjaw&lang=en

If you didn't ask to reset your password, you can ignore this email.

Thanks,

Your project-1011436028629 team

Reply

Forward

Password Reset Mail

← → C cloudproject-bcd7008.firebaseio.com/_/auth/action?mode=resetPassword&oobCode=9XTNNQWRy37naXyoPzsZeBDy1h6Kl1VRZOGc_fniuGAAAAF5vNLAjA&api... ☆ ☰ ⚙ S :

Reset your password

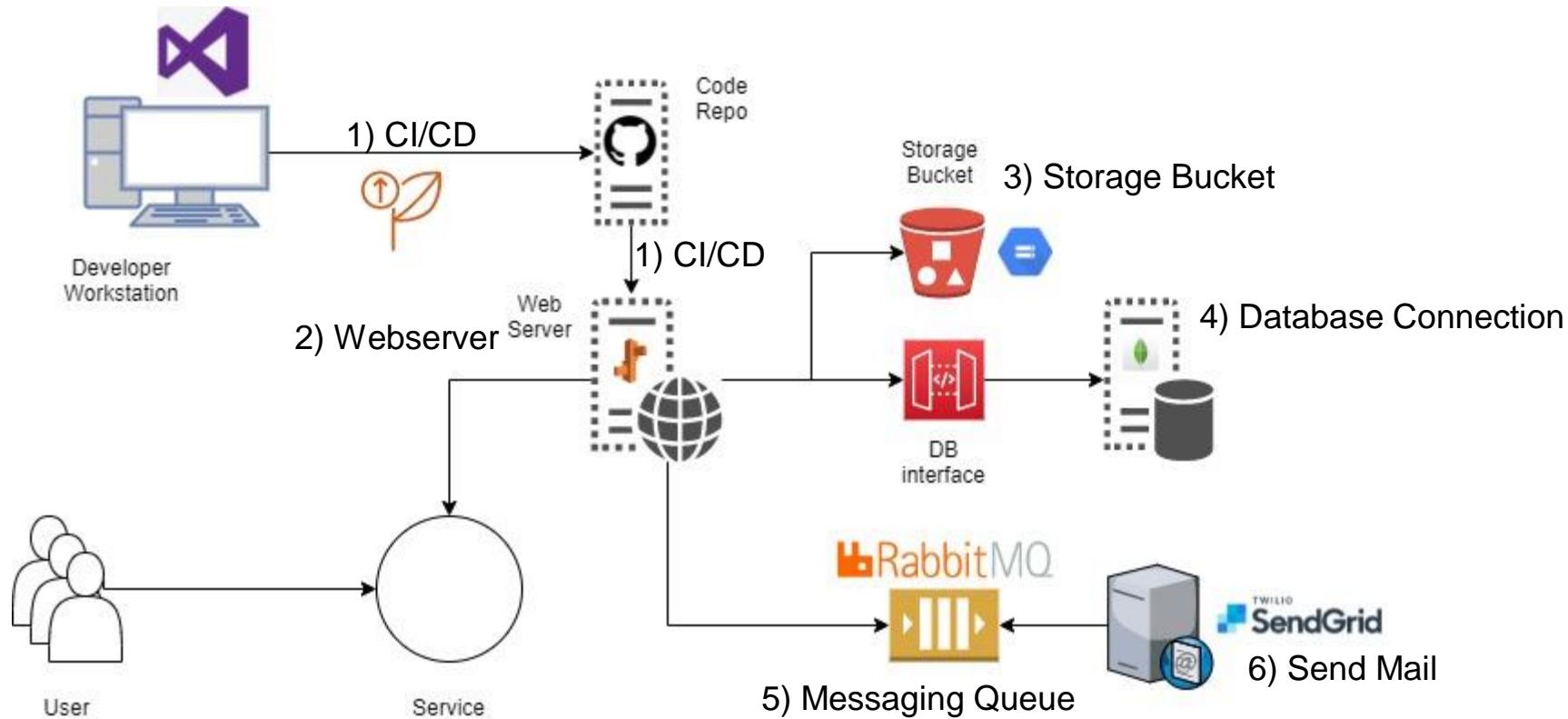
for chandran.18bcd7044@vitap.ac.in

New password

SAVE

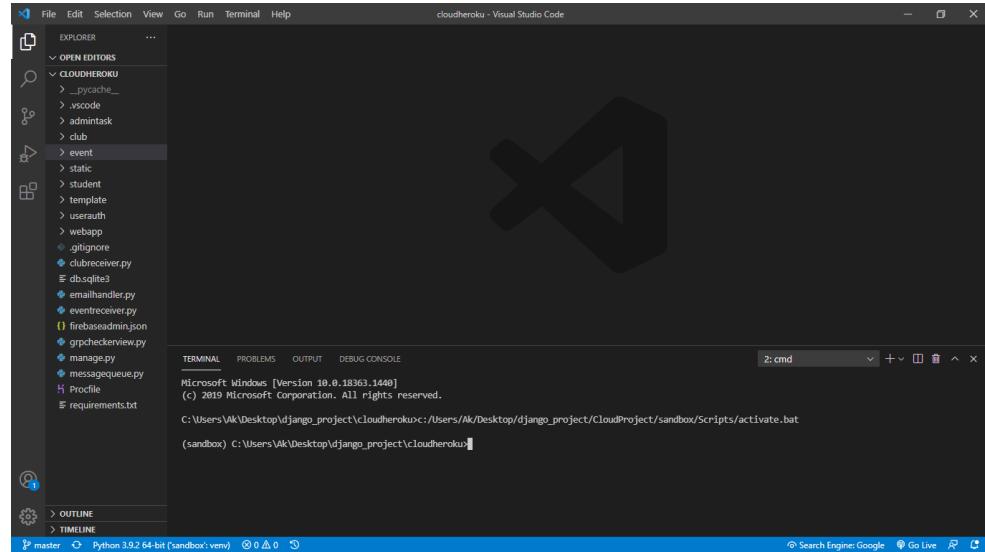
Password Reset Window

Architecture Demo



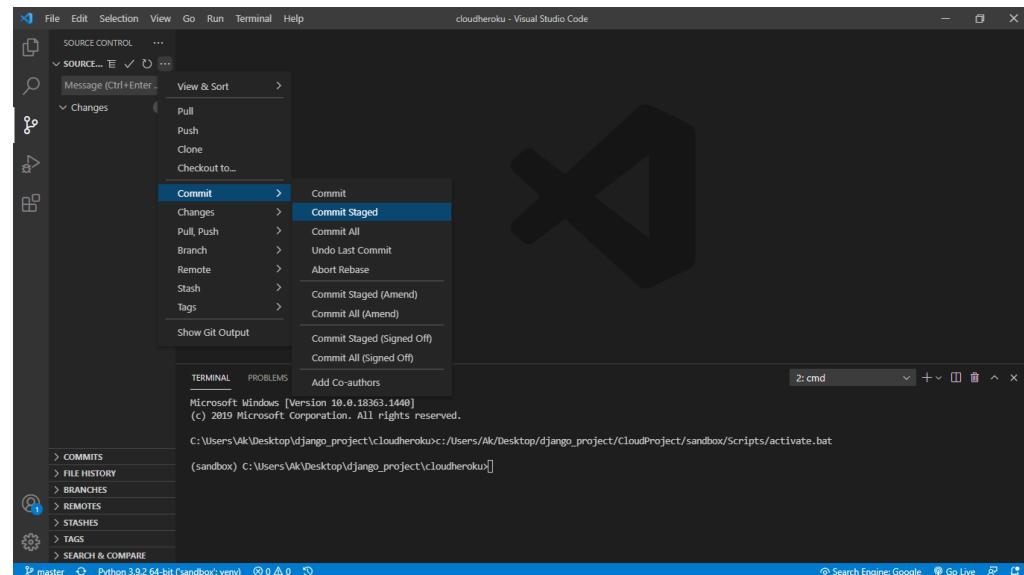
1) Code Integration and Code Deployment

- For code writing we have Visual Studio Code editor. Visual Studio editor projects a rich interface to control various aspects of the project without ever leaving the IDE.
- On the left hand side we can view all the options it provides. From file explorer to GIT integration.
- By connecting the GIT repo to our webserver and visual studio after every commit the webserver restarts itself to include all the changes that have happened in the project structure.



1) Code Integration and Code Deployment

- For code integration we will use GitHub. The work can be divided among team members and different branches can be created.
- Then using the GIT UI we can control branch merge and deal with code changes.
- Since this project had only one developer only one branch was used.
- The screenshot provides a view of the GIT UI present in Visual Studio.



1) Code Integration and Code Deployment

- After all the code required for the pushed to the GitHub, the repository will look something like this.

The screenshot shows a GitHub repository interface with the following sections:

- Commits**: A list of 20 commits from various authors (club, event, static, student, template, userauth, webapp, .gitignore, Procfile, clubreceiver.py, db.sqlite3, emailhandler.py, eventreceiver.py, firebaseadmin.json, grpcheckview.py, manage.py, messagequeue.py, requirements.txt) with their descriptions and commit times (2 days ago or last month).
- Releases**: No releases published. Option to "Create a new release".
- Packages**: No packages published. Option to "Publish your first package".
- Environments**: One environment named "cloudproject-bcd" is listed as "Active".
- Languages**: A chart showing the distribution of code by language: CSS (23.0%), HTML (21.9%), SCSS (20.5%), Less (20.3%), Python (11.7%), and JavaScript (2.6%).

2.) Deployment on Heroku

- First we will see how to deploy a Django web-app on Heroku. We explore this option of deployment because it is free of cost and great for low traffic application.
- Heroku follows container model and provides containers called dynos upon which our webapp is installed and executed.
- Free dynos are good for low traffic website. But they have a significant disadvantage when it comes to speed. After 29 mins of inactivity dynos go in sleep mode. So when a new user visits the website after 29 minutes of ideal time the load time of website is very slow.
- Another problem that data present in a dyno is not persistent. For low traffic website a developer might use SQLite to store and retrieve data. But every time a dyno restarts it starts from the state in which the code was pushed. Thus the data stored in SQLite is lost. Any kind of changes made to the files from the user end will not be reflected once the dyno restarts.

2.) Deployment on Heroku

- First create a free account on Heroku using a valid email id as you will be receiving a verification link on the same email id.
- After login you will be welcomed with this screen.

The screenshot shows the Heroku welcome screen. At the top, there's a navigation bar with the Salesforce Platform logo, the Heroku logo, and a search bar labeled "Jump to Favorites, Apps, Pipelines, Spaces...". On the right side of the header is a user icon and a "Dismiss" button. The main content area has a purple background with a sunburst graphic. It displays the message "Welcome to Heroku" and "Now that your account has been set up, here's how to get started.". Below this, there are two main sections: "Create a new app" (with a hexagon icon) and "Create a team" (with a people icon). Each section includes a brief description and a "Create new app" or "Create a team" button. At the bottom, there's a section titled "Looking for help getting started with your language?" with links to various language guides: Node.js, Ruby, Java, PHP, Python, Go, Scala, and Clojure. The overall layout is clean and modern, designed to guide new users through their first steps on the platform.

- Choose start a new app option on the previous screen. Then this screen will be loaded.

The screenshot shows the Heroku Platform interface for creating a new app. At the top, there's a header with the Salesforce Platform logo, the Heroku logo, and a search bar labeled "Jump to Favorites, Apps, Pipelines, Spaces...". On the right side of the header are user profile icons. Below the header, the main title is "Create New App". The form starts with an "App name" field containing "cloudproject7008", which is highlighted with a green border and has a green checkmark icon to its right indicating it's available. Below this, a message says "cloudproject7008 is available". The next section is "Choose a region", with a dropdown menu set to "United States". There's also a "Add to pipeline..." button. At the bottom of the form is a large purple "Create app" button. At the very bottom of the page, there's a footer with links for heroku.com, Blogs, Careers, Documentation, Support (which is highlighted in purple), Terms of Service, Privacy, Cookies, and a copyright notice for © 2021 Salesforce.com.

- Enter an app name that is unique all over the world. This will be your dyno name also.

- After clicking “Create App” in the previous window. This window will appear. On the deploy window we need to make few changes to connect to the GitHub repository and start automatic deployment.

Salesforce Platform

HEROKU

Jump to Favorites, Apps, Pipelines, Spaces...

Personal > cloudproject7008

Open app More

Overview Resources Deploy Metrics Activity Access Settings

Add this app to a pipeline

Create a new pipeline or choose an existing one and add this app to a stage in it.

Add this app to a stage in a pipeline to enable additional features

Pipelines let you connect multiple apps together and **promote code** between them.

Pipelines connected to GitHub can enable **review apps**, and create apps for new pull requests.

Choose a pipeline

Deployment method

Heroku Git Use Heroku CLI

GitHub Connect to GitHub

Container Registry Use Heroku CLI

Deploy using Heroku Git

Use git in the command line or a GUI tool to deploy this app.

Install the Heroku CLI

Download and install the [Heroku CLI](#).

If you haven't already, log in to your Heroku account and follow the prompts to create a new SSH public key.

- Under deployment method choose “GitHub” the following window will open. Choose “Connect to GitHub” option. This will open a OAuth page where github will ask permission to let heroku connect to your repository.

The screenshot shows the Heroku Platform interface. At the top, there's a header with the Salesforce Platform logo, the Heroku logo, and a search bar labeled "Jump to Favorites, Apps, Pipelines, Spaces...". On the right side of the header are user profile icons. Below the header, there's a section titled "Deployment method" with three options: "Heroku Git" (using the Heroku CLI), "GitHub" (with a "Connect to GitHub" button highlighted in a box), and "Container Registry" (using the Heroku CLI). A horizontal line separates this from the main content area. The main content area has two columns. The left column contains a "Connect to GitHub" section with instructions to connect the app to GitHub for code diffs and deployments. The right column contains sections for "View your code diffs on GitHub", "Deploy changes with GitHub", "Automatic deploys from GitHub", and "Create review apps in pipelines". Each section includes a brief description and a link to "Learn more". At the bottom of the main content area is a large purple "Connect to GitHub" button.

Salesforce Platform

HEROKU

Jump to Favorites, Apps, Pipelines, Spaces...

Deployment method

Heroku Git
Use Heroku CLI

GitHub
Connect to GitHub

Container Registry
Use Heroku CLI

Connect to GitHub

View your code diffs on GitHub

Deploy changes with GitHub

Automatic deploys from GitHub

Create review apps in pipelines

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- Click “Authorize Heroku”

The screenshot shows a web browser window titled "Authorize application — Mozilla Firefox" with the URL https://github.com/login/oauth/authorize?response_type=c.... The main content is a dark-themed dialog box from GitHub titled "Authorize Heroku Dashboard". It displays the Heroku logo and the GitHub logo with a green checkmark. The text "Heroku Dashboard by heroku" wants to access the user's account. Below that, it says "Repositories" and lists "Public and private". At the bottom are two buttons: "Cancel" and a large green "Authorize heroku" button. A note below the button states "Authorizing will redirect to <https://dashboard.heroku.com>". At the very bottom of the dialog, there is a note "Not owned or operated by GitHub". The background of the browser shows the Salesforce Platform interface with tabs for "Deployment method" and "Connect to GitHub".

Salesforce Platform

HEROKU

Jump to Favorites, Apps, Pipelines, Spaces...

Authorize application — Mozilla Firefox

https://github.com/login/oauth/authorize?response_type=c ...

Deployment method

Connect to GitHub

Connect this app to GitHub to enable code diffs and deploys.

Authorize Heroku Dashboard

Heroku Dashboard by heroku
wants to access your clouddproject7008 account

Repositories
Public and private

Cancel Authorize heroku

Authorizing will redirect to <https://dashboard.heroku.com>

Not owned or operated by GitHub

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- Under “Connect to Github” Enter the repository name and click search.

Salesforce Platform

HEROKU

Jump to Favorites, Apps, Pipelines, Spaces...

Add this app to a pipeline

Create a new pipeline or choose an existing one and add this app to a stage in it.

Add this app to a stage in a pipeline to enable additional features

Pipelines let you connect multiple apps together and **promote code** between them.
[Learn more.](#)

Pipelines connected to GitHub can enable **review apps**, and create apps for new pull requests.
[Learn more.](#)

Choose a pipeline

Deployment method

Heroku Git
Use Heroku CLI

GitHub
Connect to GitHub

Container Registry
Use Heroku CLI

Connect to GitHub

Connect this app to GitHub to enable code diffs and deploys.

Search for a repository to connect to

cloudproject7008

repo-name

Search

Missing a GitHub organization? [Ensure Heroku Dashboard has team access.](#)

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- Click on “connect”

Salesforce Platform

HEROKU

Jump to Favorites, Apps, Pipelines, Spaces...

Create a new pipeline or choose an existing one and add this app to a stage in it.

Pipelines let you connect multiple apps together and **promote code** between them.
[Learn more](#)

Pipelines connected to GitHub can enable **review apps**, and create apps for new pull requests.
[Learn more](#)

Choose a pipeline

Deployment method

Heroku Git GitHub Container Registry

Use Heroku CLI Connect to GitHub Use Heroku CLI

Connect to GitHub

Search for a repository to connect to

cloudproject7008

cloudProjectHeroku

Search

Missing a GitHub organization? [Ensure Heroku Dashboard has team access](#).

cloudproject7008/cloudProjectHeroku

Connect

heroku.com Blogs Careers Documentation [Support](#)

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- After successful connection. These options will be visible. Click on “Enable Automatic Deploys”.

The screenshot shows the Heroku settings page within the Salesforce Platform. At the top, there's a header with the Salesforce logo, the text "Salesforce Platform", the Heroku logo, and a search bar labeled "Jump to Favorites, Apps, Pipelines, Spaces...". On the right side of the header is a user icon.

Automatic deploys

Enables a chosen branch to be automatically deployed to this app.

A blue callout box contains the text: "You can now change your main deploy branch from "master" to "main" for both manual and automatic deploys, please follow the instructions [here](#)".

Enable automatic deploys from GitHub

Every push to the branch you specify here will deploy a new version of this app. Deployes happen automatically: be sure that this branch is always in a deployable state and any tests have passed before you push. [Learn more](#).

Choose a branch to deploy

main

Wait for CI to pass before deploy

Only enable this option if you have a Continuous Integration service configured on your repo.

Enable Automatic Deploys

Manual deploy

Deploy the current state of a branch to this app.

Deploy a GitHub branch

This will deploy the current state of the branch you specify below. [Learn more](#).

Choose a branch to deploy

main

Deploy Branch

- Now the GitHub and Heroku dyno are linked successfully. Whenever we will commit a code on the given branch the dyno will restart to include all changes.

The screenshot shows the Heroku Settings page for a specific application. At the top, there's a banner from the Salesforce Platform indicating that the main deploy branch can be changed from "master" to "main".

Automatic deploys

Enables a chosen branch to be automatically deployed to this app.

Automatic deploys from `main` are enabled

Every push to `main` will deploy a new version of this app. **Deploys happen automatically**; be sure that this branch in GitHub is always in a deployable state and any tests have passed before you push. [Learn more](#).

Wait for CI to pass before deploy

Only enable this option if you have a Continuous Integration service configured on your repo.

[Disable Automatic Deploys](#)

Manual deploy

Deploy the current state of a branch to this app.

Deploy a GitHub branch

This will deploy the current state of the branch you specify below. [Learn more](#).

Choose a branch to deploy

[Deploy Branch](#)

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2) Preparation of code for Heroku dyno

- In the current state the dyno will not be able to run our djnago application. This is because we have not defined the Procfile that heroku dyno use to identify the location of WSGI file. This file is used to forward web requests from web servers to web application.
- All a requirements.txt file is all required to tell the dyno which packages to install. Otherwise the code will throw package not found exception.
- To load static files we need a package called “Whitenoise” provided by heroku itself. We need to install this package and all add it to the setting.py file along with static file paths.
- Allowed Host list also needed to be changed to allow the domain provided by heroku. Otherwise error page will be loaded.

Add requirements.txt

- Run “pip freeze” command. This will give list of all the packages installed in that virtual env.
- Create a txt file named requirements.txt.
- Copy all these packages name and paste in requiements.txt
- Save the file in the same directory as manage.py.

```
(sandbox) C:\Users\Ak\Desktop\django_project\CloudProject>pip freeze
asgiref==3.3.4
awsebcli==3.19.4
botocore==1.26.75
CacheControl==0.12.6
cachetools==4.2.1
cement==2.8.2
certifi==2020.12.5
cffi==1.14.5
chardet==4.0.0
colorama==0.4.3
Django==3.2
dnspython==2.1.0
ebcli==4.0.18
enum34==1.1.10
firebase-admin==4.5.3
future==0.16.0
gcloud==0.18.3
google-api-core==1.26.3
google-api-python-client==2.1.0
google-auth==1.28.0
google-auth-httplib2==0.1.0
google-cloud-core==1.6.0
google-cloud-firestore==2.1.0
google-cloud-storage==1.37.1
google-crc32c==1.1.2
google-resumable-media==1.2.0
googleapis-common-protos==1.53.0
grpcio==1.37.0
gunicorn==20.1.0
httplib2==0.19.1
idna==2.10
Jinja2==3.0.1
jmespath==0.10.0
jws==0.1.3
keyring==9.0
```

Adding Procfile

- First run “pip install gunicorn”
- Create a file named Procfile. Do not give any dot extension to this file. It should be named only.
- Write the code written in the screenshot in the Procfile.
- It is the location to the wsgi.py file. Gunicorn is required because it is a WSGI HTTP server.

```
(sandbox) C:\Users\Ak\Desktop\django_project\CloudProject>pip install gunicorn
Requirement already satisfied: gunicorn in c:\users\ak\desktop\django_project\c...
.1.0)
Requirement already satisfied: setuptools>=3.0 in c:\users\ak\desktop\django_pro...
ges (from gunicorn) (53.0.0)
```

```
web: gunicorn webapp.wsgi
```

web defines the application type , gunicorn is the WSGI HTTP server and webapp.wsgi is the Django application wsgi settings file location.

Adding WhiteNoise

- First run “pip install whitenoise”
- Add the following lines in the middleware dictionary of the settings.py file. This instructs the Django application to use whitenoise while loading static file.
- Add these lines of code also.
- Staticfiles dirs tells the code where the static files are located and the static root is the directory that will be created in the dyno when it runs collectstatic.

```
(sandbox) C:\Users\Ak\Desktop\django_project\CloudProject>pip install whitenoise  
Requirement already satisfied: whitenoise in c:\users\ak\desktop\django_project\cl  
5.2.0)
```

```
MIDDLEWARE = [  
    'django.middleware.security.SecurityMiddleware',  
    'django.contrib.sessions.middleware.SessionMiddleware',  
    'django.middleware.common.CommonMiddleware',  
    'django.middleware.csrf.CsrfViewMiddleware',  
    'django.contrib.auth.middleware.AuthenticationMiddleware',  
    'django.contrib.messages.middleware.MessageMiddleware',  
    'django.middleware.clickjacking.XFrameOptionsMiddleware',  
    'whitenoise.middleware.WhiteNoiseMiddleware',  
]
```

```
STATICFILES_DIRS = [ os.path.join(BASE_DIR , "static"),]  
STATIC_ROOT = os.path.join(BASE_DIR , "staticfiles")  
STATICFILES_STORAGE = 'whitenoise.storage.CompressedManifestStaticFilesStorage'
```

Allowed host

- In settings.py file a list is present at the top called ALLOWED_HOSTS. Add your heroku domain to that list or for general purpose add '*' to the list.

```
ALLOWED_HOSTS = ['cloudproject-bcd.herokuapp.com']
```

Now the code is ready to be deployed on Heroku. Just commit the code , as we have already turned on the automatic deploys as soon as you push the code , dyno starts to load the webapp.

This is how the activity tab will look when you push the code.

The screenshot shows the Heroku application dashboard for 'cloudproject-bcd'. The top navigation bar includes the Salesforce Platform logo, the Heroku logo, a search bar for 'Jump to Favorites, Apps, Pipelines, Spaces...', and user account options. Below the navigation, the GitHub repository 'click959/cloutheroku' is selected under the 'Personal' dropdown, and the 'master' branch is shown. The main navigation tabs are Overview, Resources, Deploy, Metrics, Activity, Access, and Settings, with 'Activity' currently active. The 'Activity Feed' section displays a list of deployment events:

- clicktovisit@tutanota.com: Deployed 83b806a6
May 18 at 9:25 PM · v32 · [Compare diff](#)
- clicktovisit@tutanota.com: Build succeeded
May 18 at 9:25 PM · [View build log](#)
- clicktovisit@tutanota.com: Deployed 56f7d0ec
May 18 at 9:02 PM · v31 · [Roll back to here](#) · [Compare diff](#)
- clicktovisit@tutanota.com: Build succeeded
May 18 at 9:01 PM · [View build log](#)
- clicktovisit@tutanota.com: Deployed 97a237dc
May 18 at 8:38 PM · v30 · [Roll back to here](#) · [Compare diff](#)
- clicktovisit@tutanota.com: Build succeeded
May 18 at 8:27 PM · [View build log](#)

2) Deploy the application on AWS Beanstalk

- We can deploy our application to AWS using EC2 , but that takes a lot of time. We need to configure the network , add path to the files etc.
- Using AWS Beanstalk one can directly deploy their web app using CLI
- The steps involved in deploying a Django webapp on beanstalk are discussed in the next slides.

Steps

- Create a virtual environment in python using the command `virtualenv <env_name>`
- Activate the virtual environment by running the `activate.bat` present in Scripts folder.
- Using the `requirements.txt` we created for heroku run the command:
 - `pip install -r requirements.txt`

```
(sandbox) C:\Users\Ak\Desktop\django_project\CloudAWS\webapp>pip install -r requirements.txt
Requirement already satisfied: asgiref==3.3.4 in c:\users\ak\desktop\django_project\cloudaws\sandbox\lib\site-packages (from -r requirements.txt (line 1)) (3.3.4)
Requirement already satisfied: botocore==1.20.75 in c:\users\ak\desktop\django_project\cloudaws\sandbox\lib\site-packages (from -r requirements.txt (line 2)) (1.20.75)
Requirement already satisfied: CacheControl==0.12.6 in c:\users\ak\desktop\django_project\cloudaws\sandbox\lib\site-packages (from -r requirements.txt (line 3)) (0.12.6)
Requirement already satisfied: cachetools==4.2.1 in c:\users\ak\desktop\django_project\cloudaws\sandbox\lib\site-packages (from -r requirements.txt (line 4)) (4.2.1)
Requirement already satisfied: cement==2.8.2 in c:\users\ak\desktop\django_project\cloudaws\sandbox\lib\site-packages (from -r requirements.txt (line 5)) (2.8.2)
Requirement already satisfied: certifi==2020.12.5 in c:\users\ak\desktop\django_project\cloudaws\sandbox\lib\site-packages (from -r requirements.txt (line 6)) (2020.12.5)
Requirement already satisfied: cffi==1.14.5 in c:\users\ak\desktop\django_project\cloudaws\sandbox\lib\site-packages (from -r requirements.txt (line 7)) (1.14.5)
```

Steps

- Install AWS EB CLI. This can be done using the pip command
 - pip install awsebcli

```
(sandbox) C:\Users\Ak\Desktop\django_project\CloudAWS\webapp>pip install awsebcli
Collecting awsebcli
  Using cached awsebcli-3.19.4-py3-none-any.whl
Requirement already satisfied: colorama<0.4.4,>=0.2.5 in c:\users\ak\desktop\django_project\cloudaws\sandbox\lib\site-packages (from awsebcli) (0.4.
3)
Requirement already satisfied: semantic-version==2.8.5 in c:\users\ak\desktop\django_project\cloudaws\sandbox\lib\site-packages (from awsebcli) (2.8
.5)
Requirement already satisfied: six<1.15.0,>=1.11.0 in c:\users\ak\desktop\django_project\cloudaws\sandbox\lib\site-packages (from awsebcli) (1.14.0)
Requirement already satisfied: wcwidth<0.2.0,>=0.1.7 in c:\users\ak\desktop\django_project\cloudaws\sandbox\lib\site-packages (from awsebcli) (0.1.9
)
```

```
(sandbox) C:\Users\Ak\Desktop\django_project\CloudAWS\webapp>eb --version
EB CLI 3.19.4 (Python 3.9.2)
```

```
(sandbox) C:\Users\Ak\Desktop\django_project\CloudAWS\webapp>
```

Steps

- Now we need to create a folder called .ebextensions. Usually the beanstalk program searches for an application file. But Django has no such file. So this extension contains the django.config file. This setting, WSGIPath, specifies the location of the WSGI script that Elastic Beanstalk uses to start your application.
- Run “mkdir .ebextensions”

```
(sandbox) C:\Users\Ak\Desktop\django_project\CloudAWS\webapp>mkdir .ebextensions
```

```
(sandbox) C:\Users\Ak\Desktop\django_project\CloudAWS\webapp>
```

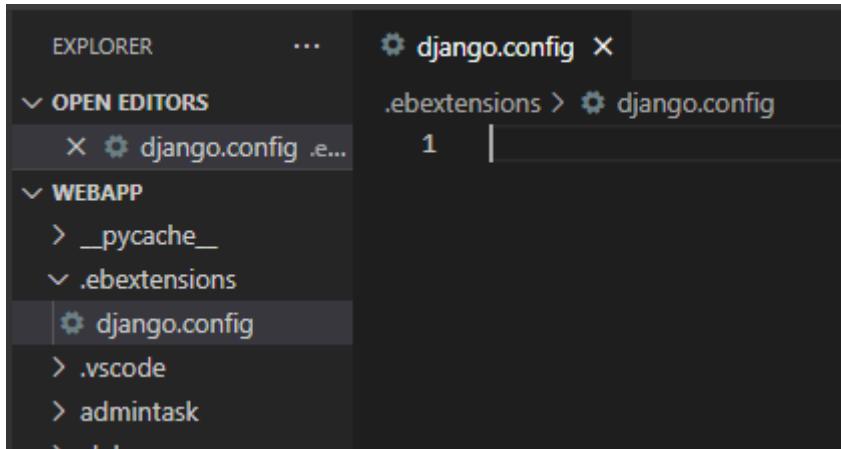
- Then run “cd .ebextensions” to change to that folder.

```
(sandbox) C:\Users\Ak\Desktop\django_project\CloudAWS\webapp>cd .ebextensions
```

```
(sandbox) C:\Users\Ak\Desktop\django_project\CloudAWS\webapp\.ebextensions>|
```

Steps

- Create a django.config file using file explorer



- Give the location to your project WSGI.py file

```
option_settings:  
  aws:elasticbeanstalk:container:python:  
    WSGIPath: webapp/wsgi.py
```

Steps

- Deactivate the virtual environment using “deactivate” command.

```
C:\Users\Ak\Desktop\django_project\CloudAWS\webapp\.ebextensions>pip3 --version  
pip 21.0.1 from c:\users\ak\appdata\local\programs\python\python39\lib\site-packages\pip (python 3.9.2)  
  
C:\Users\Ak\Desktop\django_project\CloudAWS\webapp\.ebextensions>python --version  
Python 3.9.2
```

- Check pip and python version

```
C:\Users\Ak\Desktop\django_project\CloudAWS\webapp\.ebextensions>pip install awsebcli  
Collecting awsebcli  
  Using cached awsebcli-3.19.4-py3-none-any.whl  
Collecting termcolor==1.1.0  
  Using cached termcolor-1.1.0-py3-none-any.whl
```

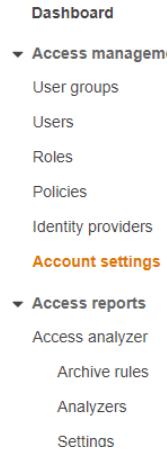
- Install awsebcli using “pip install awsebcli”

- Login into your AWS account

- Search IAM.

- In IAM window you will see Account Setting.

- Here you will find your CLI connection key



```
Enter Application Name  
(default is "webapp"): cloudProject  
Application cloudProject has been created.
```

```
It appears you are using Python. Is this correct?
```

```
(Y/n): Y
```

```
Select a platform branch.
```

- 1) Python 3.8 running on 64bit Amazon Linux 2
 - 2) Python 3.7 running on 64bit Amazon Linux 2
 - 3) Python 3.6 running on 64bit Amazon Linux
- ```
(default is 1): 1
```

```
Do you wish to continue with CodeCommit? (Y/n): n
```

```
Do you want to set up SSH for your instances?
```

```
(Y/n): y
```

Give required information

```
Type a keypair name.
(Default is aws-eb):
Generating public/private rsa key pair.
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in C:\Users\Ak\.ssh\aws-eb.
Your public key has been saved in C:\Users\Ak\.ssh\aws-eb.pub.
The key fingerprint is:
SHA256:D0kotyD0HbbN7UEBL+7Bb8x+93FGLHwS0NmJXZpFEu8 aws-eb
The key's randomart image is:
+---[RSA 2048]---+
| . o ..o..o*=? |
| .. o * + .+Xo |
| . + = = + +o+ |
| . + = + . +. |
| . S . E |
| . B . |
| . * .o |
| o . .o |
| |
+---[SHA256]---+
WARNING: Uploaded SSH public key for "aws-eb" into EC2 for region us-east-1.
```

## Key Pair for SSH

```
C:\Users\Ak\Desktop\django_project\CloudAWS\webapp>eb create cloudProjectenv
warning: LF will be replaced by CRLF in club.firebaseioadmin.json.
The file will have its original line endings in your working directory
warning: LF will be replaced by CRLF in .gitignore
The file will have its original line endings in your working directory
```

```
Uploading cloudProject/app-1002-210521_141643.zip to S3. This may take a while.
```

```
Upload Complete.
```

```
Environment details for: cloudProjectenv
```

```
Application name: cloudProject
Region: us-east-1
Deployed Version: app-1002-210521_141643
Environment ID: e-fvrgercymy
Platform: arn:aws:elasticbeanstalk:us-east-1::platform/Python 3.8 running on 64bit Amazon Linux 2/3.2.2
Tier: WebServer-Standard-1.0
CNAME: UNKNOWN
Updated: 2021-05-21 08:47:36.196000+00:00
```

```
Printing Status:
```

```
2021-05-21 08:47:34 INFO createEnvironment is starting.
2021-05-21 08:47:36 INFO Using elasticbeanstalk-us-east-1-174378555117 as Amazon S3 storage bucket for environment data.
2021-05-21 08:48:03 INFO Created security group named: sg-0e0454e44aea278d7
2021-05-21 08:48:18 INFO Created load balancer named: awseb-e-f-AWSEBLoa-1FN4Z96K40G1G
2021-05-21 08:48:18 INFO Created security group named: awseb-e-fvrgercymy-stack-AWSEBSecurityGroup-5SHHD1Q02RH6
2021-05-21 08:48:19 INFO Created Auto Scaling launch configuration named: awseb-e-fvrgercymy-stack-AWSEBAutoScalingLaunchConfiguration-1CKW2CF
HELHQ5
2021-05-21 08:49:22 INFO Created Auto Scaling group named: awseb-e-fvrgercymy-stack-AWSEBAutoScalingGroup-1SN0AWZLNRNQR
2021-05-21 08:49:22 INFO Waiting for EC2 instances to launch. This may take a few minutes.
2021-05-21 08:49:22 INFO Created Auto Scaling group policy named: arn:aws:autoscaling:us-east-1:174378555117:scalingPolicy:a7a26049-583b-4dd2-
985c-c249e4830632:autoScalingGroupName/awseb-e-fvrgercymy-stack-AWSEBAutoScalingGroup-1SN0AWZLNRNQR:policyName/awseb-e-fvrgercymy-stack-AWSEBAutoSca-
lingScaleDownPolicy-1IIDL37CXJDXJ
2021-05-21 08:49:22 INFO Created Auto Scaling group policy named: arn:aws:autoscaling:us-east-1:174378555117:scalingPolicy:4356ddef-5bed-47f8-
85a1-42f9cc286e4f:autoScalingGroupName/awseb-e-fvrgercymy-stack-AWSEBAutoScalingGroup-1SN0AWZLNRNQR:policyName/awseb-e-fvrgercymy-stack-AWSEBAutoSca-
lingScaleUpPolicy-178BEA7P2CDG
2021-05-21 08:49:22 INFO Created CloudWatch alarm named: awseb-e-fvrgercymy-stack-AWSEBCloudwatchAlarmLow-1IAJRGSVWNVQD
2021-05-21 08:49:23 INFO Created CloudWatch alarm named: awseb-e-fvrgercymy-stack-AWSEBCloudwatchAlarmHigh-191PF5W9H001T
2021-05-21 08:49:42 INFO Instance deployment successfully generated a 'Procfile'.
2021-05-21 08:49:44 INFO Instance deployment completed successfully.
2021-05-21 08:50:48 INFO Successfully launched environment: cloudProjectenv
```

Uploading of code source and initialization of all services

```
C:\Users\Ak\Desktop\django_project\CloudAWS\webapp>eb deploy
Creating application version archive "app-4cd4-210521_155207".
Uploading cloudProject/app-4cd4-210521_155207.zip to S3. This may take a while.
Upload Complete.
2021-05-21 10:27:00 INFO Environment update is starting.
2021-05-21 10:27:43 INFO Deploying new version to instance(s).
2021-05-21 10:27:50 INFO Instance deployment successfully generated a 'Procfile'.
2021-05-21 10:27:58 INFO Instance deployment completed successfully.
2021-05-21 10:28:22 INFO New application version was deployed to running EC2 instances.
2021-05-21 10:28:22 INFO Environment update completed successfully.
```

```
C:\Users\Ak\Desktop\django_project\CloudAWS\webapp>eb open
```

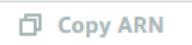
| Type | Details                                                        |
|------|----------------------------------------------------------------|
| INFO | Environment update completed successfully.                     |
| INFO | New application version was deployed to running EC2 instances. |
| INFO | Instance deployment completed successfully.                    |
| INFO | Instance deployment successfully generated a 'Procfile'.       |
| INFO | Deploying new version to instance(s).                          |

Upon successful deployment  
of source code

# Steps using UI:

- Open AWS beanstalk
- Provide your App name
- Provide the environment
- In our case it is Python
- Choose a relevant python version
- Create a S3 bucket to upload the source code –  
cloudproject7008
- Copy its URL
- Click on create application

## Buckets (1)



Buckets are containers for data stored in S3. [Learn more](#)

Find buckets by name



1



| Name                                    | AWS Region                      | Access                | Creation date                        |
|-----------------------------------------|---------------------------------|-----------------------|--------------------------------------|
| elasticbeanstalk-us-east-1-174378555117 | US East (N. Virginia) us-east-1 | Objects can be public | April 15, 2021, 01:35:39 (UTC+05:30) |

Click on create bucket

### General configuration

#### Bucket name

myawsbucket

Bucket name must be unique and must not contain spaces or uppercase letters. [See rules for bucket naming](#)

#### AWS Region

US East (N. Virginia) us-east-1

Copy settings from existing bucket - *optional*

Only the bucket settings in the following configuration are copied.

[Choose bucket](#)

Provide Bucket name and keep the AWS region as default.

## Block Public Access settings for this bucket

Public access is granted to buckets and objects through access control lists (ACLs), bucket policies, access point policies, or all. In order to ensure that public access to this bucket and its objects is blocked, turn on Block all public access. These settings apply only to this bucket and its access points. AWS recommends that you turn on Block all public access, but before applying any of these settings, ensure that your applications will work correctly without public access. If you require some level of public access to this bucket or objects within, you can customize the individual settings below to suit your specific storage use cases. [Learn more](#)

### **Block all public access**

Turning this setting on is the same as turning on all four settings below. Each of the following settings are independent of one another.

#### **Block public access to buckets and objects granted through new access control lists (ACLs)**

S3 will block public access permissions applied to newly added buckets or objects, and prevent the creation of new public access ACLs for existing buckets and objects. This setting doesn't change any existing permissions that allow public access to S3 resources using ACLs.

#### **Block public access to buckets and objects granted through any access control lists (ACLs)**

S3 will ignore all ACLs that grant public access to buckets and objects.

#### **Block public access to buckets and objects granted through new public bucket or access point policies**

S3 will block new bucket and access point policies that grant public access to buckets and objects. This setting doesn't change any existing policies that allow public access to S3 resources.

#### **Block public and cross-account access to buckets and objects through any public bucket or access point policies**

S3 will ignore public and cross-account access for buckets or access points with policies that grant public access to buckets and objects.

Uncheck the option “block all public access”

✓ Successfully created bucket "cloudproject7008"

To upload files and folders, or to configure additional bucket settings choose [View details](#).

[View details](#)



## Objects (0)

Objects are the fundamental entities stored in Amazon S3. You can use [Amazon S3 inventory](#) to get a list of all objects in your bucket. For others to access your objects, you'll need to explicitly grant them permissions. [Learn more](#)

The screenshot shows the AWS S3 Objects page. At the top, there are several buttons: 'Copy URL' (disabled), 'Open', 'Download', 'Delete', 'Actions ▾', 'Create folder', and a prominent orange 'Upload' button. Below these are search and filter controls: a search bar with placeholder 'Find objects by prefix', a 'Show versions' toggle, and navigation arrows. A table header includes columns for Name, Type, Last modified, Size, and Storage class, with sorting icons. The main content area displays a message: 'No objects' and 'You don't have any objects in this bucket.' A large 'Upload' button is centered at the bottom.

Click on upload and upload  
your source code

## Files and folders (0)

All files and folders in this table will be uploaded.

The screenshot shows the AWS S3 Files and Folders page. At the top, there are three buttons: 'Remove', 'Add files', and 'Add folder'. Below these is a search bar with placeholder 'Find by name' and navigation arrows. A table header includes columns for Name, Folder, Type, and Size, with sorting icons. The main content area displays a message: 'No files or folders' and 'You have not chosen any files or folders to upload.'

Total remaining: 992 files: 8.3 MB(97.86%)

Estimated time remaining: 22 minutes

Transfer rate: 6.4 KB/s

2%

Amazon S3 > cloudproject7008 > Edit bucket policy

## Edit bucket policy

### Bucket policy

The bucket policy, written in JSON, provides access to the objects stored in the bucket. Bucket policies don't apply to objects owned by other accounts. [Learn more](#)

[Policy examples](#)

[Policy generator](#)

### Bucket ARN

arn:aws:s3:::cloudproject7008

### Policy

1

```
{
 "Version": "2008-10-17",
 "Statement": [
 {
 "Sid": "AllowPublicRead",
 "Effect": "Allow",
 "Principal": {
 "AWS": "*"
 },
 "Action": "s3:GetObject",
 "Resource": "arn:aws:s3:::cloudproject7008/*"
 }
]
}
```

Copy the bucket URL and start filling the beanstalk form

Objects (1)

Object URL Copied

stored in Amazon S3. You can use [Amazon S3 inventory](#) to get a list of all objects in your bucket. For others to access your objects, you'll need to explicitly grant them permission.

C  Copy URL  Open  Download  Delete  Actions ▾  Create folder  Upload

Find objects by prefix  Show versions  <  1  >  ⚙

Application information

Application name  
CloudProject

Up to 100 Unicode characters, not including forward slash (/).

Platform

Platform  
Python

Platform branch  
Python 3.8 running on 64bit Amazon Linux 2

Platform version  
3.2.2 (Recommended)

## Source code origin

### Version label

Unique name for this version of your application code.

### Source code origin

Maximum size 512 MB

 Local file Public S3 URL

Click on create application



## Creating Cloudproject-env-1

This will take a few minutes. ..

- 1:05pm Created CloudWatch alarm named:  
awseb-e-vj6es3pm93-stack-AWSEBCloudwatchAlarmLow-1IDOXTOOHFSWR
- 1:05pm Created CloudWatch alarm named:  
awseb-e-vj6es3pm93-stack-AWSEBCloudwatchAlarmHigh-6DZM0O7702X4
- 1:05pm Created Auto Scaling group policy named:  
arn:aws:autoscaling:us-east-1:174378555117:scalingPolicy:32e93802-65a2-4115-8904-f39e53c54b10:autoScalingGroupName/awseb-e-vj6es3pm93-stack-AWSEBAutoScalingGroup-1NJZPYZ0M23YV:policyName/awseb-e-vj6es3pm93-stack-AWSEBAutoScalingScaleDownPolicy-9D554HT7N0LG
- 1:05pm Created Auto Scaling group policy named:  
arn:aws:autoscaling:us-east-1:174378555117:scalingPolicy:f03c9fa5-d920-476c-a53d-c6c213d0d885:autoScalingGroupName/awseb-e-vj6es3pm93-stack-AWSEBAutoScalingGroup-1NJZPYZ0M23YV:policyName/awseb-e-vj6es3pm93-stack-AWSEBAutoScalingScaleUpPolicy-1VQDK326JX3N4
- 1:05pm Created Load Balancer listener named:  
arn:aws:elasticloadbalancing:us-east-1:174378555117:listener/app/awseb-AWSEB-G4XUXEIXFECZ/2761edcc0d205289/3e86db4fa39afc12
- 1:05pm Waiting for EC2 instances to launch. This may take a few minutes.
- 1:05pm Created Auto Scaling group named:  
awseb-e-vj6es3pm93-stack-AWSEBAutoScalingGroup-1NJZPYZ0M23YV
- 1:05pm Created load balancer named:  
arn:aws:elasticloadbalancing:us-east-1:174378555117:loadbalancer/app/awseb-AWSEB-G4XUXEIXFECZ/2761edcc0d205289

### 3) Storage Bucket

- Google Cloud Storage Bucket was used to store images generated by Admin and Clubs.
- Two folders were created. One for events images and one for club images.
- The information required to connect the webpage to the bucket can be found as follows:
  - Register a webapp with the Google Cloud Account
  - Go to Project Setting
  - Go to Service Account
  - Generate a new key
  - Download the JSON file which contains all the information required to connect
  - Connect to Google Cloud Storage

your apps

**Add app**

Web apps

 CloudProject  
Web App

App nickname: CloudProject 

App ID: 1:1011436028629:web:bc858dfc883bd3cabb985c

[Link to a Firebase Hosting site](#)

**SDK setup and configuration**

CDN   Config 

Copy and paste these scripts into the bottom of your <body> tag, but before you use any Firebase services:

```
<!-- The core Firebase JS SDK is always required and must be listed
<script src="https://www.gstatic.com/firebasejs/8.6.1.firebaseio.js">
<!-- TODO: Add SDKs for Firebase products that you want to use
 https://firebase.google.com/docs/web/setup#available-libraries
<script src="https://www.gstatic.com/firebasejs/8.6.1/firebase-analytics.js">
<script>
```

# Register the webapp in Google Cloud

```
<!-- TODO: Add SDKs for Firebase products that you want to use
 https://firebase.google.com/docs/web/setup#available-libraries
<script src="https://www.gstatic.com/firebasejs/8.6.1.firebaseio-analy

<script>
 // Your web app's Firebase configuration
 // For Firebase JS SDK v7.20.0 and later, measurementId is optional
 var firebaseConfig = {
 apiKey: "AIzaSyBEBdlgDtMjwb0SfE-s1AwJGVu0xFVBjaw",
 authDomain: "cloudproject-bcd7008.firebaseioapp.com",
 databaseURL: "https://cloudproject-bcd7008-default.firebaseio.firebaseio
 projectId: "cloudproject-bcd7008",
 storageBucket: "cloudproject-bcd7008.appspot.com",
 messagingSenderId: "1011436028629",
 appId: "1:1011436028629:web:bc858dfc883bd3cabb985c",
 measurementId: "G-EJYZXZDTQV"
 };

```

## Configuration file for connecting using web

# Project settings

[General](#)   [Cloud Messaging](#)   [Integrations](#)   [Service accounts](#)   [Data privacy](#)   [Users and permissions](#)[Manage service account permissions](#)

**Firebase Admin SDK**

Legacy credentials

Database secrets

Other service accounts

4 service accounts from Google Cloud [\[View\]](#)

**Firebase Admin SDK**

Your Firebase service account can be used to authenticate multiple Firebase features, such as Database, Storage and Auth, programmatically via the unified Admin SDK. [Learn more](#)

Firebase service account  
firebase-adminsdk-6yl99@cloudproject-bcd7008.iam.gserviceaccount.com

Admin SDK configuration snippet

Node.js    Java    Python    Go

```
import firebase_admin
from firebase_admin import credentials

cred = credentials.Certificate("path/to/serviceAccountKey.json")
firebase_admin.initialize_app(cred)
```

Project Setting / Service Account. Download the JSON file

```
{
 "type": "service_account",
 "project_id": "cloudproject-bcd7008",
 "private_key_id": "eb81087e290571a6f28a4
 "private_key": "-----BEGIN PRIVATE KEY--
 "client_email": "firebase-adminsdk-6yl99
 "client_id": "113614963172229844241",
 "auth_uri": "https://accounts.google.com
 "token_uri": "https://oauth2.googleapis.
 "auth_provider_x509_cert_url": "https://
 "client_x509_cert_url": "https://www.goo
}
}
```

JSON file content. Only half image to protect the account

## 4) Database Connection

- Create account on cloud atlas and create a free cluster. First choose a cloud provider

Cloud Provider & Region

AWS, N. Virginia (us-east-1) ▾



**Multi-Cloud, Multi-Region & Workload Isolation (M10+ clusters)**

Distribute data across clouds or regions for improved availability and local read performance, or introduce replicas for workload isolation. [Learn more](#)

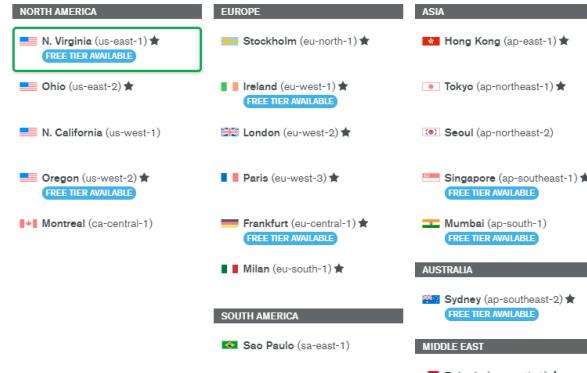


# 4) Database Connection

- Choose the region on the node
- After selecting the region use the “Free Forever” sandbox
- Choose the cluster name.
- Click on create cluster

Create a **free tier cluster** by selecting a region with **FREE TIER AVAILABLE** and choosing the M0 cluster tier below.

★ Recommended region ⓘ



## Shared Clusters for development environments and low-traffic applications

| Tier       | RAM                                             | Storage | vCPU   | Base Price   |
|------------|-------------------------------------------------|---------|--------|--------------|
| M0 Sandbox | There is a limit of one M0 cluster per project. |         |        |              |
| M2         | Shared                                          | 2 GB    | Shared | \$9 / MONTH  |
| M5         | Shared                                          | 5 GB    | Shared | \$25 / MONTH |

As we have already created a cluster it shows M0 sandbox limit reached.

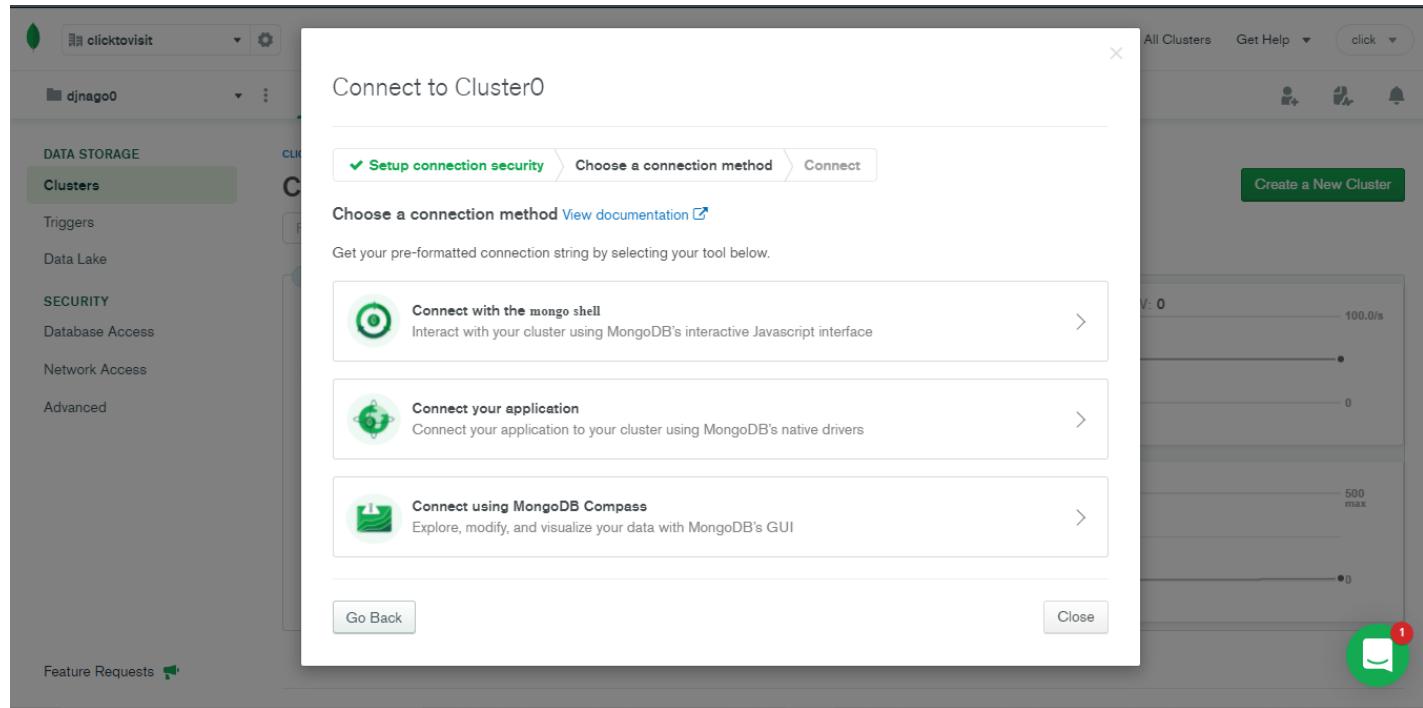
# 4) Database Connection

- After the cluster is created and connect button is available. Click on the connect button.

The screenshot shows the MongoDB Atlas Clusters page for the 'djnago0' project. The left sidebar includes sections for DATA STORAGE (Clusters, Triggers, Data Lake), SECURITY (Database Access, Network Access, Advanced), and Feature Requests. The main content area displays the 'Clusters' section with a search bar and a 'Create a New Cluster' button. A cluster named 'Cluster0' (Version 4.4.6) is listed under a 'SANDBOX' tier. The cluster details include: CLUSTER TIER (M0 Sandbox (General)), REGION (AWS / Mumbai (ap-south-1)), TYPE (Replica Set - 3 nodes), and LINKED REALM APP (None Linked). To the right, there are four monitoring cards: 'Operations' (R: 0 W: 0, 100.0/s), 'Logical Size' (108.3 KB, 512.0 MB max, Last 30 Days), 'Connections' (8, 500 max, Last 6 Hours), and another 'Operations' card (R: 0 W: 0, 0, Last 6 Hours). A red notification badge with the number '1' is visible in the bottom right corner of the interface.

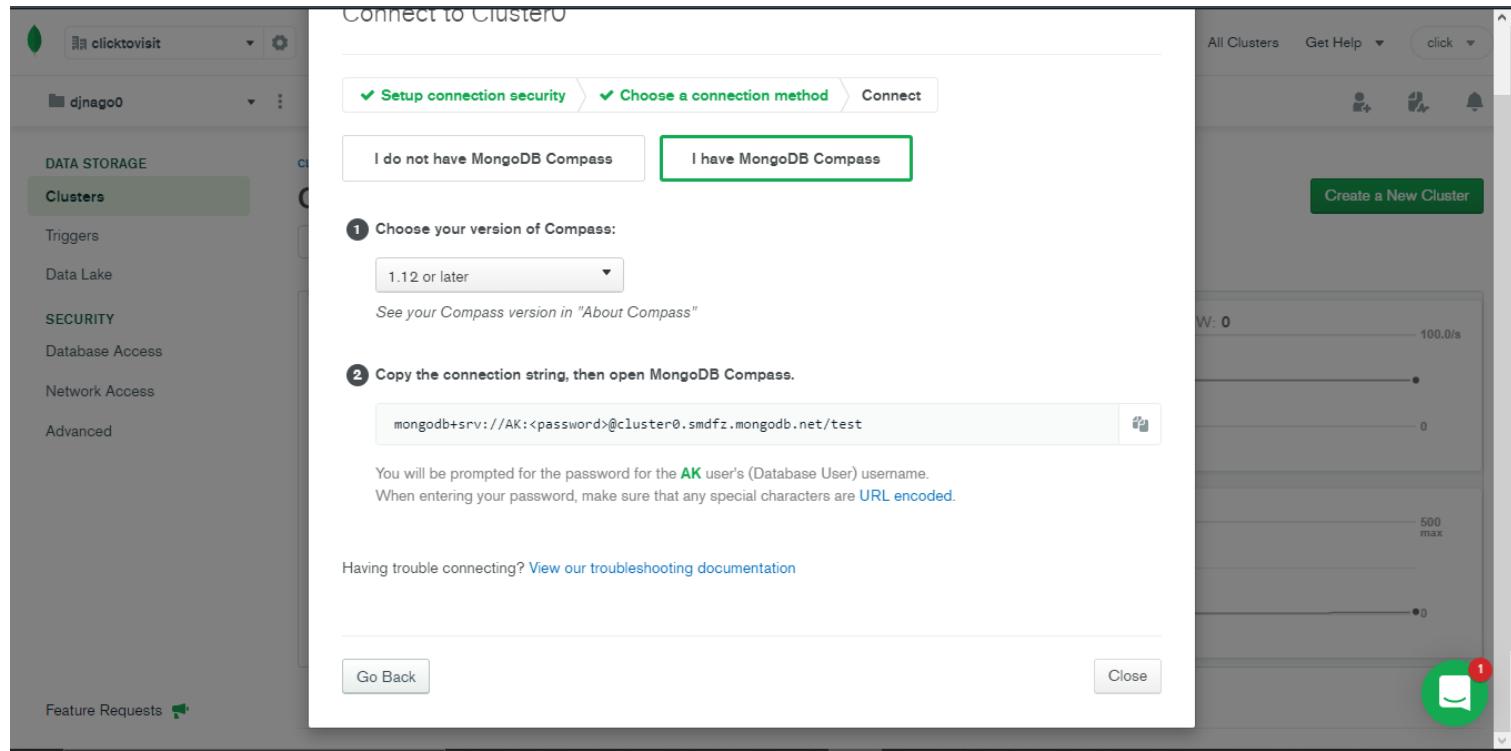
# 4) Connecting to MongoDB compass

- In choose a connection method choose MongoDB compass.



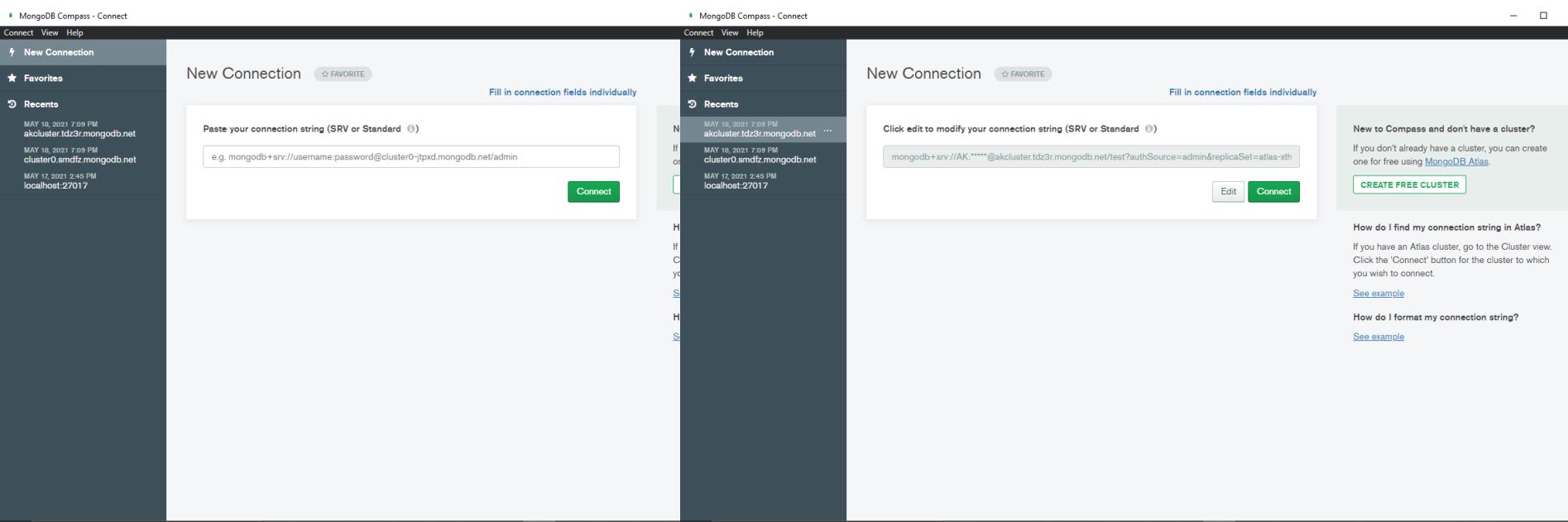
# 4) Connecting to MongoDB compass

- Choose a proper version of the mongodb compass you have and copy the connection string.



# 4) Connecting to MongoDB compass

- The first window shows the MongoDB compass window. Paste the connection string in the box provided and replace the “password” with your password for the cluster in the string. Click connect.



# 4) Connecting to MongoDB compass

- The first window should appear and it will take a few second to connect to the database. After that the second window will appear. Click on “Create Database” option and give database name and collection name. Do not select any check box. We have created a database named CloudProject.

The image shows two screenshots of the MongoDB Compass application. The left screenshot displays a 'New Connection' dialog box with a progress bar and the text 'Connecting to akcluster.tdz3r.mongodb.net'. The right screenshot shows the main MongoDB Compass interface with a list of databases and collections.

**Left Screenshot (Connecting):**

- Header: MongoDB Compass - Connect
- Menu: Connect, View, Help
- Toolbar: New Connection, Favorites, Recents
- Recent Connections:
  - MAY 10, 2021 7:09 PM akcluster.tdz3r.mongodb.net
  - MAY 10, 2021 7:09 PM cluster0.smdfz.mongodb.net
  - MAY 17, 2021 2:45 PM localhost:27017
- Main Area: A progress bar with the text 'Connecting to akcluster.tdz3r.mongodb.net' and a 'Cancel' button.

**Right Screenshot (Connected):**

- Header: MongoDB Compass - akcluster.tdz3r.mongodb.net
- Menu: Connect, View, Help
- Toolbar: Local
- Database List:

| Database Name | Storage Size | Collections | Indexes |
|---------------|--------------|-------------|---------|
| CloudProject  | 96.0KB       | 3           | 3       |
| admin         | 0.0B         | 0           | 0       |
| config        | 0.0B         | 1           | 0       |
| local         | 0.0B         | 7           | 0       |
- CLUSTER:
  - Replica Set (alias-xth96m-... 3 Nodes)
  - EDITION: MongoDB 4.4 Enterprise
- Filter: Filter your data (CloudProject, admin, config, local)
- Bottom: MongoSH Beta

- To create different collections that will store data about different topics , click in create collection button. Give the information required and click on create.

MongoDB Compass - akcluster.tdz3r.mongodb.net/CloudProject

Connect View Help

Local

4 DBS 11 COLLECTIONS C

☆ FAVORITE

HOSTS  
akcluster-shard-00-02.tdz3...  
akcluster-shard-00-00.tdz3...  
akcluster-shard-00-01.tdz3...

CLUSTER  
Replica Set (atlas-xth96m-...  
3 Nodes

EDITION  
MongoDB 4.4.6 Enterprise

Filter your data

CloudProject + -

Clubs

Events

Student

> admin

> config

> local

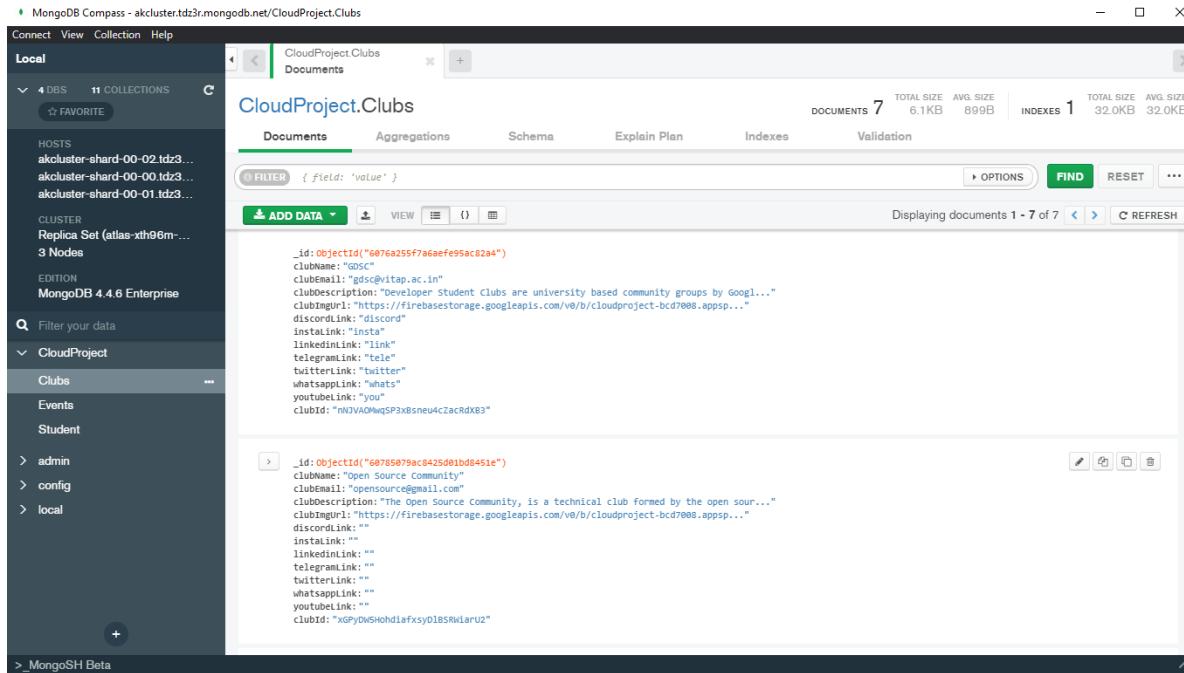
+ >\_MongoSH Beta

Collections

CREATE COLLECTION

| Collection Name | Documents | Avg. Document Size | Total Document Size | Num. Indexes | Total Index Size | Properties |
|-----------------|-----------|--------------------|---------------------|--------------|------------------|------------|
| Clubs           | 7         | 899.3 B            | 6.1 KB              | 1            | 32.0 KB          |            |
| Events          | 5         | 536.2 B            | 2.6 KB              | 1            | 32.0 KB          |            |
| Student         | 6         | 149.8 B            | 899.0 B             | 1            | 32.0 KB          |            |

- Data can be inserted into the collection using “Add Data” option or by writing query in mongo shell.



MongoDB Compass - akcluster.tdz3r.mongodb.net/CloudProject.Events

Local

4 DBS 11 COLLECTIONS C

FAVORITE

HOSTS  
akcluster-shard-00-02.tdz3r.mongodb.net/CloudProject.Events

akcluster-shard-00-00.tdz3r.mongodb.net/CloudProject.Events

akcluster-shard-00-01.tdz3r.mongodb.net/CloudProject.Events

CLUSTER  
Replica Set (atlas-xth96m-... 3 Nodes

EDITION MongoDB 4.4.6 Enterprise

Filter your data

CloudProject

Clube

Events

Student

> admin

> config

> local

> \_MongoSH Beta

CloudProject.Events

Documents Aggregations Schema Explain Plan Indexes Validation

FILTER { field: 'value' } OPTIONS FIND RESET ...

Displaying documents 1 - 5 of 5

**ADD DATA** VIEW

**\_id: ObjectId("6076a3be3d0b2039c8155530")**  
**eventid: "47b996239bf1b8538a8cfcd4886590"**  
**eventname: "Android Study Jam"**  
**eventlocation: "None"**  
**eventdescription: "Android"**  
**eventPosterURL: "https://firebasestorage.googleapis.com/v0/b/cloudproject-bcd7000.appspot.com/..."**  
**eventStartTime: 2021-04-15T11:41:00.000+08:00**  
**eventEndTime: 2021-04-16T13:41:00.000+08:00**  
**instagramLink: "NA"**  
**twitterLink: "NA"**  
**linkenLink: "NA"**  
**acceptResponse: false**  
**host: "MNVAOHwqSP3x8sneu4Czacr0X3"**

**\_id: ObjectId("6076a4aa109cf02a4440")**  
**eventid: "47b996239bf1b8538a8cfcd4886590"**  
**eventname: "Expert Panel on coding culture"**  
**eventlocation: "Online"**  
**eventdescription: "Expert Panel on coding culture"**  
**eventPosterURL: "https://firebasestorage.googleapis.com/v0/b/cloudproject-bcd7000.appspot.com/..."**  
**eventStartTime: 2021-04-06T20:32:00.000+08:00**  
**eventEndTime: 2021-04-07T20:32:00.000+08:00**  
**instagramLink: ""**  
**twitterLink: ""**  
**linkenLink: ""**  
**acceptResponse: true**  
**host: "MNVAOHwqSP3x8sneu4Czacr0X3"**

MongoDB Compass - akcluster.tdz3r.mongodb.net/CloudProject.Student

Local

4 DBS 11 COLLECTIONS C

FAVORITE

HOSTS  
akcluster-shard-00-02.tdz3r.mongodb.net/CloudProject.Student

akcluster-shard-00-00.tdz3r.mongodb.net/CloudProject.Student

akcluster-shard-00-01.tdz3r.mongodb.net/CloudProject.Student

CLUSTER  
Replica Set (atlas-xth96m-... 3 Nodes

EDITION MongoDB 4.4.6 Enterprise

Filter your data

CloudProject

Clube

Events

Student

> admin

> config

> local

> \_MongoSH Beta

CloudProject.Student

Documents Aggregations Schema Explain Plan Indexes Validation

FILTER { field: 'value' } OPTIONS FIND RESET ...

Displaying documents 1 - 6 of 6

**ADD DATA** VIEW

**\_id: ObjectId("606765ac47b996239b4b093")**  
**studentEmail: "okay@gmail.com"**  
**studentId: "18BC7008"**  
**studentName: "AK"**

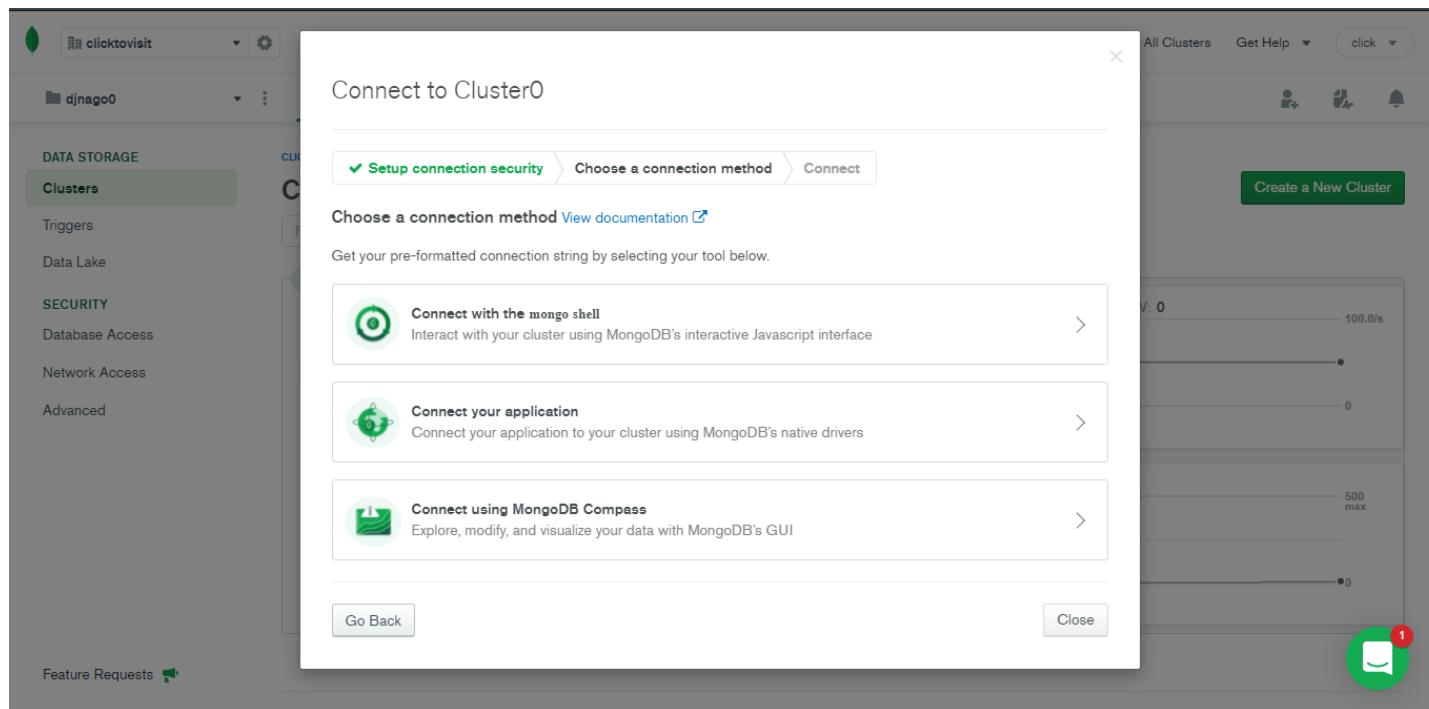
**\_id: ObjectId("6076e9cd3d5f524057bbe82")**  
**studentId: "18BC7008"**  
**studentName: "Kathal Aditya Rajendra"**  
**studentEmail: "rajendra.18bc7008@vitap.ac.in"**  
**localId: "#UJK99K5zndlk282Lsu0381rZyz2"**

**\_id: ObjectId("6077427a95dc5f27fc89f94")**  
**studentId: "18BC7008"**  
**studentName: "Kathal Aditya Rajendra"**  
**studentEmail: "zadmitchell13825@mail.com"**  
**localId: "LaTLVC2NscQ8sp7nqe8QUG8tO4K3"**

**\_id: ObjectId("60780251c3da441ebcf7069c")**  
**studentId: "Roll Number"**  
**studentName: "Student Name"**  
**studentEmail: "stuv@vitap.ac.in"**  
**localId: "hgxeIggxz3JQh1h3BmtR3CE3"**

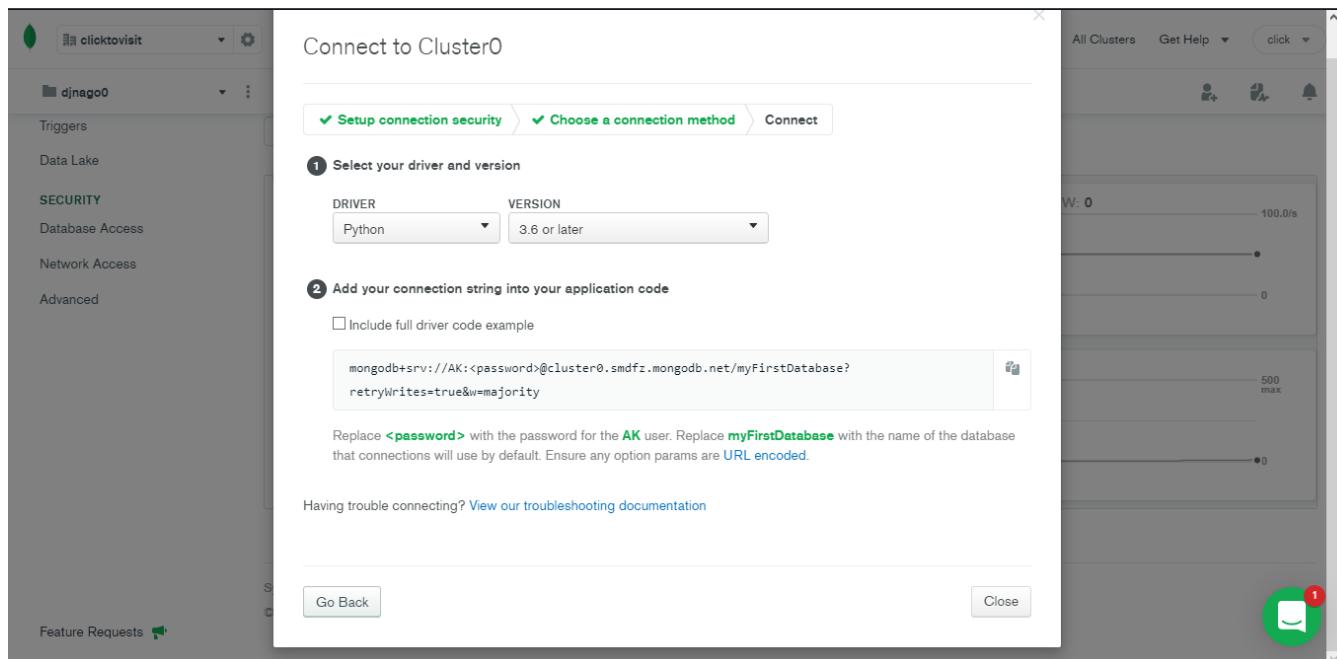
# 4) Connecting to cluster using python

- Choose the “connect your application” option.



# 4) Connecting to cluster using python

- Choose a proper python version and copy the connection string.



## 4) Connecting to cluster using python

- Run “pip install pymongo”
- Use the connection string from before.
- Replace <password> with your cluster password.
- Now we can run any query on the database using the db variable reference.

```
client = MongoClient("mongodb+srv://AK:c2V
db = client.get_database("CloudProject")
```

## 5) Messaging Queue

- Messaging Queue is implemented to reduce load off the webserver while sending mails.
- If messaging queue would not have been used the webserver will have to send mail itself to the user and thus it will not be able to respond to a longer time. This would have reduced the efficiency of the webserver.
- Also in case of error webserver would have to itself resolve the error and thus eating much more of its time.
- We have implemented the messaging queue using the CloudAMQP which provides RabbitMQ has a service.
- Thus now a different program listens to the changes in the queue and responds accordingly saving the webserver's time.
- The first step is to create a free account in the CloudAMQP website.

# 5) Messaging Queue

- Click on create new Instance.

The screenshot shows the CloudAMQP Instances page. At the top, there is a navigation bar with the CloudAMQP logo, a dropdown menu 'List all instances', and a user icon 'CloudProject'. Below the header, a green button '+ Create New Instance' is visible. The main area is titled 'Instances' and contains a table with one row. The table columns are 'Name', 'Host', 'Plan', 'Datacenter', and 'Actions'. The single instance listed is 'EmailServiceQueue' (Host: puffin, Plan: Little Lemur, Datacenter: Amazon Web Services AP-South-1 (Mumbai)). The 'Actions' column for this instance includes 'Edit' and 'RabbitMQ Manager' links.

| Name              | Host   | Plan         | Datacenter                              | Actions                                               |
|-------------------|--------|--------------|-----------------------------------------|-------------------------------------------------------|
| EmailServiceQueue | puffin | Little Lemur | Amazon Web Services AP-South-1 (Mumbai) | <a href="#">Edit</a> <a href="#">RabbitMQ Manager</a> |

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**CloudAMQP**

[Contact Support](#)

Open 24 hours a day, 7 days a week



# 5) Messaging Queue

- Fill the details required. Remember this is a instance not the queue. This instance will contain the queue. So name accordingly.

Plan      Region      Configure  
(Dedicated plans only)      Confirm

Select a plan and name - Step 1 of 4

Name: Name to describe your instance

Plan: Little Lemur (Free)

Tags:

Tags are used to separate your instances between projects. This is primarily used in the project listing view for easier navigation and access control.

Tags allow admins to manage team members access to different groups of instances.

Plan



Little Lemur

See the [plan page](#) to learn about the different plans.

Cancel      Select Region



## 5) Messaging Queue

- Select the data center and its respective cloud provider.
- Since we are in India , South –East is a good location with low latency. If Mumbai is available it is even more good.
- Click on “create instance” after review.

Plan      Region      Configure (Dedicated plans only)      Confirm

Select a region and data center - Step 2 of 4

Data center: US-East-1 (Northern Virginia)

aws

Plan



Little Lemur

See the [plan page](#) to learn about the different plans.

« Back      Cancel      Review

MENU      MORE

Plan      Region      Configure (Dedicated plans only)      Confirm

Confirm new instance - Step 4 of 4

Plan



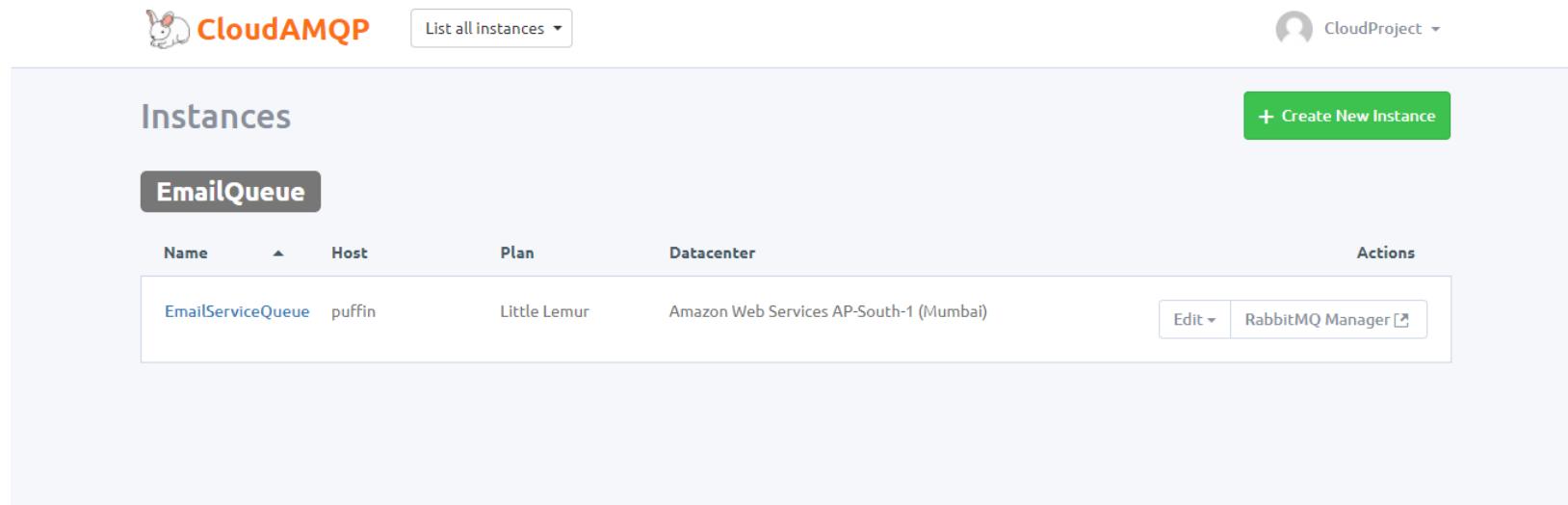
Little Lemur

Total: \$0 / month

Name:  del  
Platform:  Amazon Web Services  
Region:  US-East-1 (Northern Virginia)

« Back      Create Instance ✓

- After the instance is created its name will be visible here. Click on the URL that is the instance name.



The screenshot shows the CloudAMQP Instances page. At the top left is the CloudAMQP logo (a rabbit icon) and the text "CloudAMQP". To the right is a dropdown menu "List all instances ▾". On the far right is a user profile icon and the text "CloudProject ▾". Below the header, the word "Instances" is displayed in a large, light blue font. To the right of "Instances" is a green button with a plus sign and the text "+ Create New Instance". Underneath, there is a table with the following columns: Name, Host, Plan, Datacenter, and Actions. A single row is shown for the instance "EmailServiceQueue", which is associated with the host "puffin", the plan "Little Lemur", and located in the datacenter "Amazon Web Services AP-South-1 (Mumbai)". In the "Actions" column for this row, there are two buttons: "Edit ▾" and "RabbitMQ Manager [x]".

| Name              | Host   | Plan         | Datacenter                              | Actions                                                     |
|-------------------|--------|--------------|-----------------------------------------|-------------------------------------------------------------|
| EmailServiceQueue | puffin | Little Lemur | Amazon Web Services AP-South-1 (Mumbai) | <a href="#">Edit ▾</a> <a href="#">RabbitMQ Manager [x]</a> |

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**CloudAMQP**

[Contact Support](#)

Open 24 hours a day, 7 days a week



- This window will be visible after clicking that URL. In this window you can find the AMQP URL . Copy this URL . We will require this to connect to the service from our code.

 **CloudAMQP**

EmailServiceQueue ▾

RabbitMQ Manager ↗

CloudProject ▾

**Details**

**DETAILS**

**ALARMS**

**WEBHOOKS**

**DEFINITIONS**

**METRICS**

**LOG**

**NODES**

**FIREWALL**

**PLUGINS**

**INTEGRATIONS**

**DIAGNOSTICS**

**CERTIFICATE**

**AWS EVENTBRIDGE**

**Hosts** `puffin.rmq2.cloudamqp.com (Load balanced)`  
`puffin-01.rmq2.cloudamqp.com`

**Region** `amazon-web-services::ap-south-1`

**Created at** `2021-05-18 14:18 UTC+00:00`

**User & Vhost** `hwpaaxhr`

**Password** \*\*\*  

**AMQP URL** `amqps://hwpaaxhr:***@puffin.rmq2.cloudamqp.com/hwpaaxhr`  

**MQTT details**

**Open connections** `0 of 20`

When you've reached the maximum concurrent connections further connections will be prohibited. You can connect again when you're under the limit.

Unfortunately when you've reached the maximum concurrent connec...

**Active Plan**

  
**Little Lemur**

**Upgrade Instance**



- After publishing the queue from code , they will be visible under RabbitMQ Manager. For our project we have created two queue , one for dealing with club related emails and other with event related emails.

RabbitMQ™ Refreshed 2021-05-20 16:26:08 Refresh every 30 seconds

RabbitMQ 3.8.5 Erlang 23.1 Virtual host All Cluster puffin

Overview Connections Channels Exchanges **Queues** Admin User hwpaxhr Log out

## Queues

All queues (2)

Pagination

Page 1 of 1 - Filter:   Regex ? Displaying 2 items , page size up to: 100

| Overview |         |          |       | Messages |         |       | Message rates |               |        | +/- |
|----------|---------|----------|-------|----------|---------|-------|---------------|---------------|--------|-----|
| Name     | Type    | Features | State | Ready    | Unacked | Total | incoming      | deliver / get | ack    |     |
| club     | classic | HA       | idle  | 0        | 0       | 0     | 0.00/s        | 0.00/s        | 0.00/s |     |
| event    | classic | HA       | idle  | 0        | 0       | 0     |               |               |        |     |

▶ Add a new queue

---

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## 6) Sending Mail

- We are using SendGrid a email service provided by Twilio.
- Create a SendGrid account
- Then go to API keys
- Generate an API key
- Use this API key to connect to SendGrid using sendgrid package



Aditya Kathal



Dashboard



Email API

Marketing NEW

Design Library



Stats



Activity



Suppressions



Settings

REPUTATION 100%

VIEW ACCOUNT USAGE

## Ready to unlock the full potential of Twilio SendGrid?

Finish your account setup in order to select a paid Email API or Marketing Campaigns plan.

[Let's do it!](#)

### Hello Aditya! Here's your recent email activity.

[Wk](#) [Mo](#)

REQUESTS

11

DELIVERED

36.36%  
4

OPENED

90.91%  
10

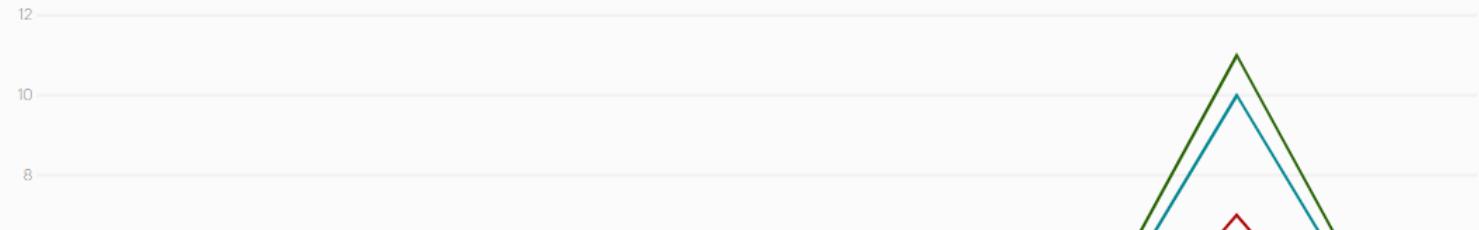
CLICKED

0.00%  
0

BOUNCES

0.00%  
0

SPAM REPORTS

0.00%  
0

 Activity

 Suppressions

 Settings

Account Details

Alert Settings

**API Keys**

Inbound Parse

IP Access Management

IP Addresses

Mail Settings

Sender Authentication

Subuser Management

Teammates

Tracking

Two-Factor

Authentication

REPUTATION  100%

[VIEW ACCOUNT USAGE](#)

Finish your account setup in order to select a paid plan and unlock the full potential of Twilio SendGrid.

[Let's do it!](#)

[Remind Me Later](#)



Aditya Kathal



Dashboard



Email API



Marketing NEW



Design Library



Stats



Activity



Suppressions



Settings

Account Details

Alert Settings

## API Keys

[Create API Key](#)

| NAME                                               | API KEY                      | ACTION |
|----------------------------------------------------|------------------------------|--------|
| cloudproject<br>API Key ID: FPfsL7XFS1aQMNgBK-Nbiw | .....<br><small>copy</small> |        |

# References

- <https://docs.aws.amazon.com/elasticbeanstalk/latest/dg/create-deploy-python-django.html>
- <https://devcenter.heroku.com/articles/deploying-python>
- <https://help.ubuntu.com/community/CronHowto>
- <https://semaphoreci.com/blog/cicd-pipeline>