



Parshwanath Charitable Trust's
A. P. SHAH INSTITUTE OF TECHNOLOGY

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CCL Presentation

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◆ *Introduction*

The APSIT Community is a web application designed to facilitate collaboration and knowledge sharing among students and faculty members.

It has been developed using Next.js and MUI for the frontend, and Python and Flask for the backend.





❖ *Problem Definition*

The development of the APSIT Community application was not without its challenges.

The primary challenge was to host the application on the cloud and ensure that it is scalable, secure, and available to users 24x7.

Additionally, the application should be easy to deploy and maintain, even with a small team of developers.

❖ *Description*

The application has been deployed on AWS using various cloud services, making it scalable, secure, and easy to deploy and maintain.



Amplify

Used to deploy the frontend application



Beanstalk

Used to deploy the backend application



S3

Used to store the static content



IAM

Used to create different users with different policies



Implementation details

AMPLIFY:

The screenshot displays the AWS Amplify console interface. On the left, a sidebar contains navigation links for 'AWS Amplify', 'All apps', 'App settings' (General, Amplify Studio settings, Domain management, Build settings, Previews, Notifications, Environment variables, Access control, Monitoring, Rewrites and redirects, Custom headers), 'Documentation', and 'Support'. The main content area shows the 'development' branch selected under 'Hosting environments'. It features a 'Connect branch' button and a list of branches. The 'development' branch is highlighted, showing a 'Continuous deploys set up' status, a preview URL, and a deployment timeline (Provision, Build, Deploy) with green checkmarks. Below this, the 'master' branch is also shown with similar details. The bottom of the console includes a footer with 'ClearShell', 'Feedback', 'Language', and copyright information for Amazon Web Services India Private Limited.

AWS Amplify [X]

Learn how to get the most out of Amplify Hosting [2 of 5 steps complete](#) [X]

Hosting environments Backend environments

This tab lists all connected branches, select a branch to view build details. [Connect branch](#)

development
Continuous deploys set up [\(Edit\)](#)

<https://development.amplifyapp.com>

Last deployment: 4/4/2023, 1:10:28 pm

Last commit: Loading more images from s3 | 8d116ad | [GitHub - development](#)

Previews: Disabled

master
Continuous deploys set up [\(Edit\)](#)

<https://master.amplifyapp.com>

Last deployment: 22/3/2023, 11:10:03 pm

Last commit: Merge pull request #45 from it... | 752d83d | [GitHub - master](#)

Previews: Disabled

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❖ *Implementation details*

BEANSTALK:

The screenshot displays the AWS Elastic Beanstalk console. The left sidebar contains navigation links for 'Environments', 'Applications', and 'Change history'. The main content area is titled 'All environments' and includes a search bar, a refresh button, an 'Actions' dropdown, and a 'Create a new environment' button. Below these elements is a table listing the environments.

	Environment name ▲	Health ▼	Application name ▼	Date created ▼	Last modified ▼	URL ▼	Running versions ▼	Platform
<input type="radio"/>	Apsitcommunitybackend-env-2	Ok	APSIT Community Backend	2023-04-03 01:32:14 UTC+0530	2023-04-04 18:40:27 UTC+0530	Apsitcommunitybackend-env-2.eba-jc76pbmq.us-east-2.elasticbeanstalk.com	apsit community backend-source	Python 3.8 running on 64bit Amazon Linux 2

The footer of the console shows 'CloudShell', 'Feedback', 'Language', and copyright information for Amazon Web Services India Private Limited.

❖ *Implementation details*

S3:

Amazon S3 ×

Amazon S3 > Buckets

Account snapshot View Storage Lens dashboard

Storage lens provides visibility into storage usage and activity trends. [Learn more](#)

Buckets (3) Info [Learn more](#)

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

Find buckets by name

	Name	AWS Region	Access	Creation date
<input type="radio"/>	amplify-amplify746bd82c0cd24-staging-113224-deployment	Asia Pacific (Mumbai) ap-south-1	Objects can be public	March 18, 2023, 17:02:29 (UTC+05:30)
<input type="radio"/>	apsit-community-static	Asia Pacific (Mumbai) ap-south-1	Objects can be public	March 18, 2023, 21:32:16 (UTC+05:30)
<input type="radio"/>	elasticbeanstalk-us-east-2-162050966934	US East (Ohio) us-east-2	Objects can be public	April 3, 2023, 00:51:39 (UTC+05:30)

Feedback Language

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I AM:

aws

Services

Search

[Alt+S]

Global

Abhishek Tiwari

Identity and Access Management (IAM)

Search IAM

Dashboard

Access management

- User groups
- Users
- Roles
- Policies
- Identity providers
- Account settings

Access reports

- Access analyzer
 - Archive rules
 - Analyzers
 - Settings
- Credential report
- Organization activity

PermissionsGroupsTagsSecurity credentialsAccess Advisor

Permissions policies (4)

Permissions are defined by policies attached to the user directly or through groups.

Find policies

< 1 >

<input type="checkbox"/>	Policy name	Type	Attached via
<input type="checkbox"/>	AdministratorAccess-AWSElasticBeanst...	AWS managed	Directly
<input type="checkbox"/>	AWSCodeCommitFullAccess	AWS managed	Directly
<input type="checkbox"/>	AWSCodePipeline_FullAccess	AWS managed	Directly
<input type="checkbox"/>	IAMUserChangePassword	AWS managed	Directly

Permissions boundary (not set)

Set a permissions boundary to control the maximum permissions for this user. Use this advanced feature used to delegate permission management to others. [Learn more](#)

Generate policy based on CloudTrail events

CloudShell

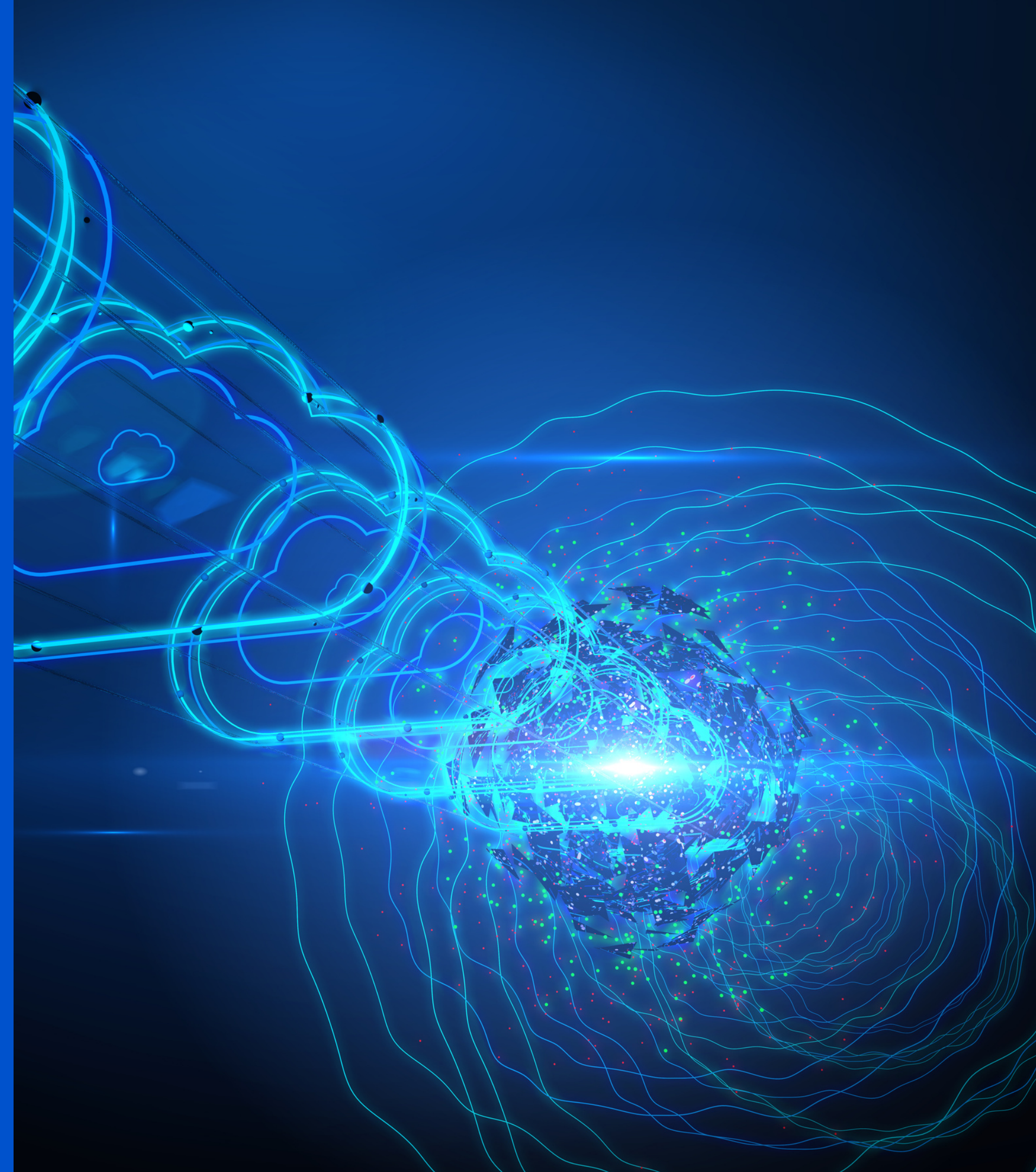
Feedback

Language

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❖ *Outcomes*

- Understanding the different cloud services available in AWS.
- Learning to deploy an application in the cloud.
- Knowledge of DevOps practices.
- Familiarity with AWS console and CLI.



The background features a series of overlapping circles and a diagonal white stripe on a blue gradient. The circles are in various shades of blue, creating a layered effect. The stripe runs from the top-left towards the bottom-right.

Thank You