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Summarizing DevOps

1. What is DevOps?

- DevOps is a combination of development and operations to unite people, process and technology in application planning, development, delivery and operations. Teams adopt DevOps culture for better customer needs and achieve business goals faster. DevOps influences the application lifecycle through its planning, development, delivery and operations.

2. Why DevOps?

- DevOps is a software development practice, where it fills the bridge between the development and operations team. DevOps focuses on continuous testing and delivery and requires a relatively larger team. It targets end-to-end business solutions for faster delivery. In Waterfall methodology, there is no reserving or going back to the previous steps, once we are at the testing stage. To overcome this limitation, agile methodology is used. However, with agile the application runs well on the machine but there are inconsistencies in the computing environment. Therefore, there happen to be conflicts between the dev & ops teams. So, the DevOps strategy is used.

Soft Skills in DevOps:

1. Communication and Collaboration:

- are crucial to succeed in DevOps competition. These two are very important to break down the siloes between Dev and Ops teams, align teams' goals to business objectives, and implement DevOps culture cross-functionally.

2. Flexibility:

- One team in DevOps may have completely different implementation as compared to that of the other team. The tools and processes that your DevOps team uses today may change radically in the future as your organization embraces new opportunities. Without being open-minded toward working with new tools and new ways of doing things, you won't be very effective at DevOps.

3. Resilience:

- The most successful DevOps Engineers embrace a changeable mindset. They are open to finding new and innovative solutions to problems and challenges. Rather than repeating processes blindly and adopting an 'if it isn't broken, don't fix it' approach, they will challenge situations, thinking innovatively to find improved ways of fixing issues. Building resilience and springing back from issues that might arise through the process.

4. Automation:

- A DevOps engineer should be capable of automating the entire DevOps pipeline, including CI/CD cycles, app performance monitoring, infrastructure and configurations, among others. DevOps automation skillset is closely linked to ability in knowledge about DevOps toolkit, coding and scripting.

5. Customer- focused approach:

- is the end goal of any successful DevOps process. Given this factor, DevOps professionals should ensure every function they perform follows business objectives and delivers value to the end-user. In the process, they will need to collaborate with stakeholders, such as developers, testers, project managers, and the organization's thought leadership, towards a common goal.

6. Time management:

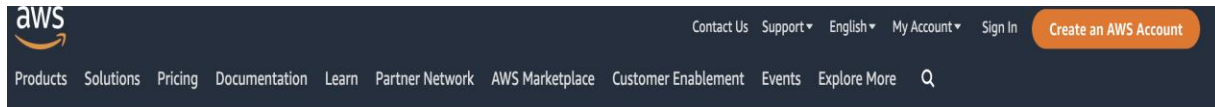
- Managing your time effectively allows developers to focus on the important tasks and get tasks done more effectively. When you have a lot to do, managing time can be difficult. There are numerous techniques to effectively manage your time.

7. Security:

- The risk rates are mostly proportional to the speed of deployment that DevOps facilitates. Due to this constraint, traditional security measures at the end or as a separate process might not work. This is where DevOps security serves as an advantage by integrating security with SDLC right from the beginning.

AWS ACCOUNT & CLI SETUP

ACCOUNT:

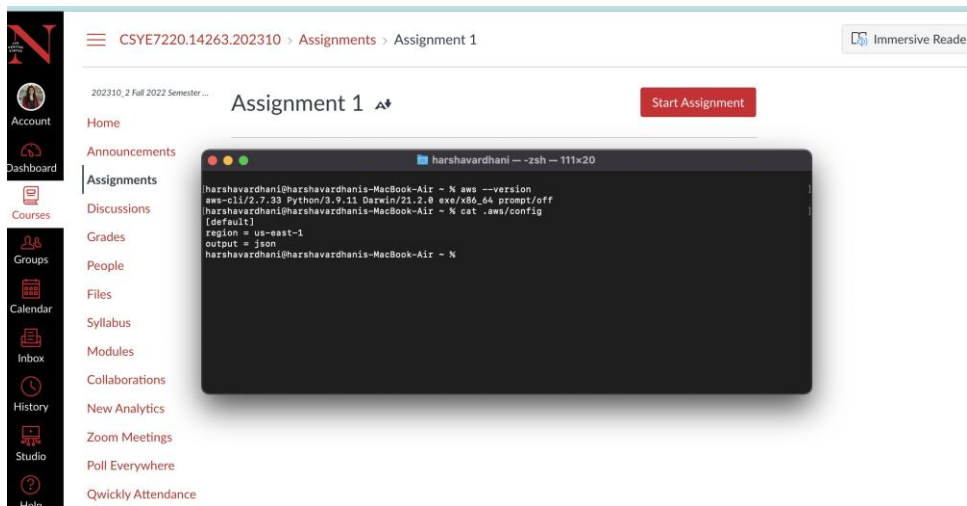


Congratulations!

Thank you for signing up with AWS.

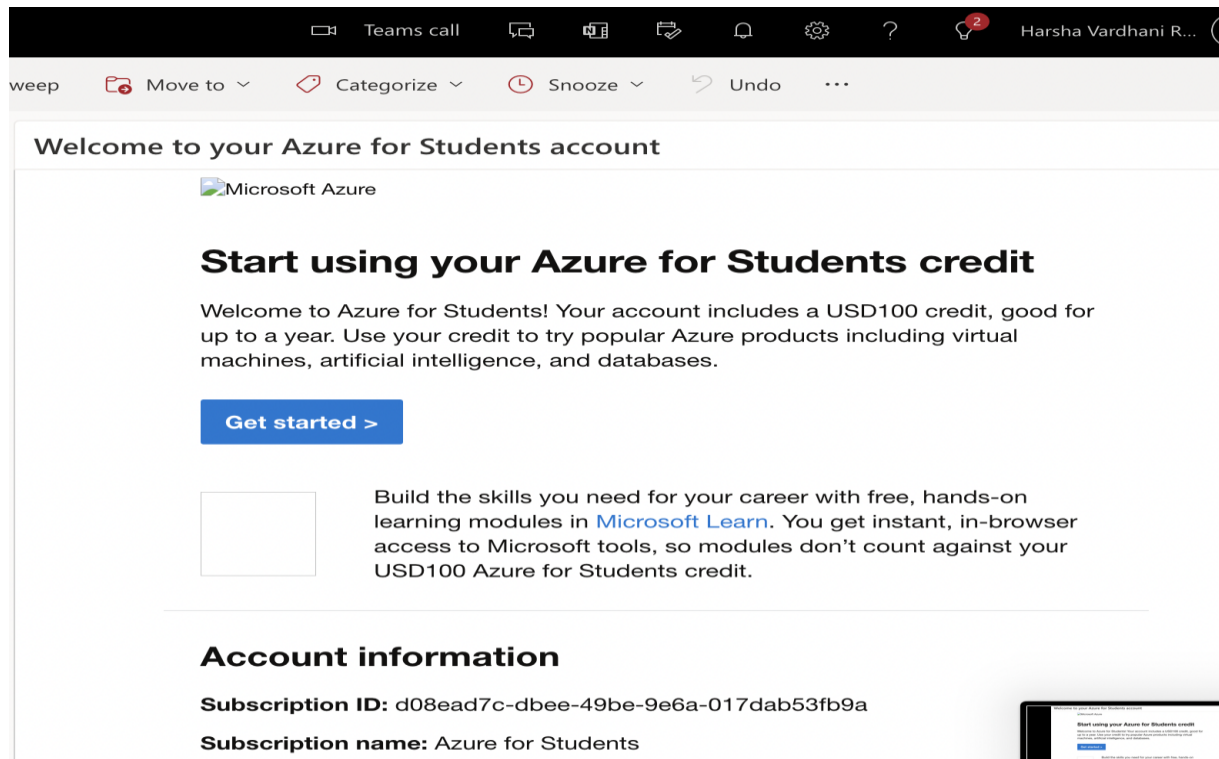
We are activating your account, which should take a few minutes. You will receive an email when this is complete.

CLI:



AZURE & CLI SETUP

AZURE ACCOUNT:



The screenshot shows the top navigation bar of a Teams call interface with icons for Teams call, chat, screen sharing, file sharing, notifications, settings, help, and a user profile for Harsha Vardhani R... Below the navigation bar is a toolbar with buttons for 'weep', 'Move to', 'Categorize', 'Snooze', 'Undo', and a menu icon. The main content area is titled 'Welcome to your Azure for Students account' and features the Microsoft Azure logo. A large heading reads 'Start using your Azure for Students credit'. Below this, a paragraph welcomes the user and mentions a USD100 credit. A blue 'Get started >' button is present. To the right, a text box explains that learning modules in Microsoft Learn are available for free. Below this, the 'Account information' section displays the 'Subscription ID: d08ead7c-dbee-49be-9e6a-017dab53fb9a' and the 'Subscription name: Azure for Students'. A small thumbnail of the 'Start using your Azure for Students credit' page is visible on the right.

Teams call

weep Move to Categorize Snooze Undo

Welcome to your Azure for Students account

Microsoft Azure

Start using your Azure for Students credit

Welcome to Azure for Students! Your account includes a USD100 credit, good for up to a year. Use your credit to try popular Azure products including virtual machines, artificial intelligence, and databases.

[Get started >](#)

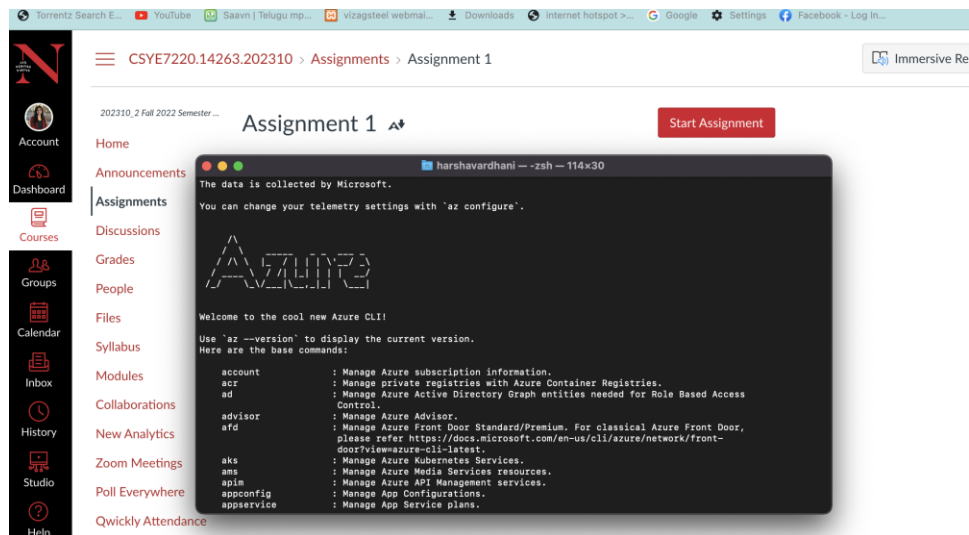
Build the skills you need for your career with free, hands-on learning modules in [Microsoft Learn](#). You get instant, in-browser access to Microsoft tools, so modules don't count against your USD100 Azure for Students credit.

Account information

Subscription ID: d08ead7c-dbee-49be-9e6a-017dab53fb9a

Subscription name: Azure for Students

CLI:



The screenshot shows a web browser window with multiple tabs open. The main content area displays the 'Assignment 1' page for the course 'CSYE7220.14263.202310'. The page has a sidebar with navigation links: Home, Announcements, Assignments, Discussions, Grades, People, Files, Syllabus, Modules, Collaborations, New Analytics, Zoom Meetings, Poll Everywhere, and Quickly Attendance. The 'Assignments' link is selected. The main content area shows the 'Assignment 1' title and a 'Start Assignment' button. Below the title, a terminal window is open, displaying the 'az' command prompt and a list of available commands. The terminal output includes a welcome message and a list of commands with their descriptions.

CSYE7220.14263.202310 > Assignments > Assignment 1

Assignment 1

[Start Assignment](#)

```
harshavardhani ~ - ssh - 114x30
The data is collected by Microsoft.
You can change your telemetry settings with 'az configure'.

Welcome to the cool new Azure CLI!
Use 'az --version' to display the current version.
Here are the base commands:

account      : Manage Azure subscription information.
acr          : Manage private registries with Azure Container Registries.
ad           : Manage Azure Active Directory Graph entities needed for Role Based Access Control.
advisor      : Manage Azure Advisor.
afd          : Manage Azure Front Door Standard/Premium. For classical Azure Front Door, please refer https://docs.microsoft.com/en-us/cli/azure/network/front-doorviewazure-cli-intent.
aks          : Manage Azure Kubernetes Services.
ams          : Manage Azure Media Services resources.
api         : Manage Azure API Management services.
appconfig   : Manage App Configurations.
appservice   : Manage App Service plans.
```