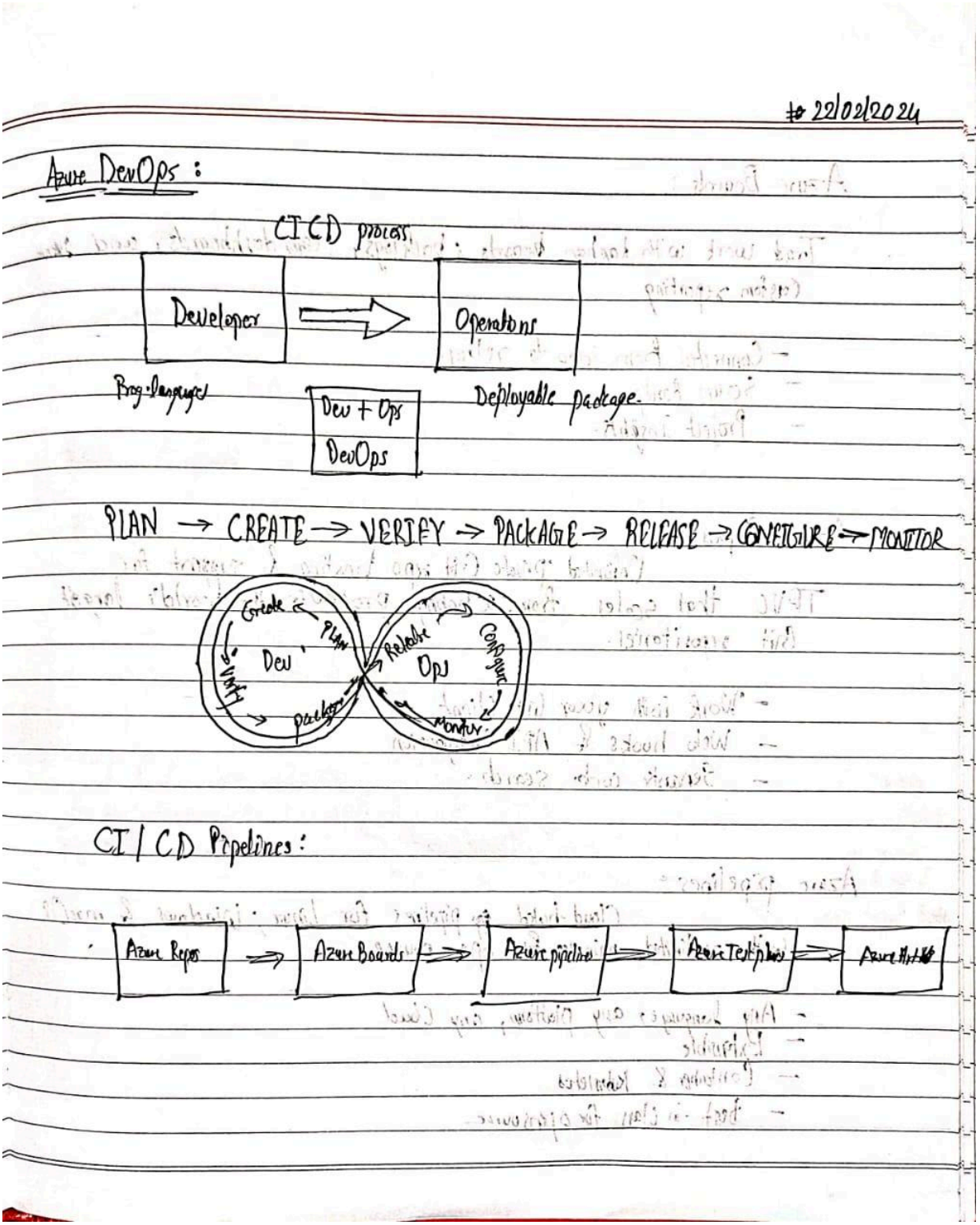
Name : Parth Nandedkar
Date : 22 Feb 2024
Topics : Azure DevOps
Batch : Data Engineering Batch-1

Handwritten Notes :



Azure Boards :

Track work with kanban boards ; backlogs ; team dashboards , and custom reporting

- Connected from idea to release
- Scrum Ready
- Project Insights.

Azure Repos :

Unlimited private Git repo hosting & support for TFVC that scales from a hobby project to the world's largest Git repositories.

- Work with your Git client
- Web hooks & API integration
- Semantic code search.

Azure pipelines :

Cloud-hosted pipelines for Linux ; Windows & macOS with unlimited minutes for open source.

- Any language, any platform, any cloud
- Extensible
- Container & kubernetes
- Best-in class for open source.

Azure Test plan :

Get end to end traceability. Run load tests & log defects from any browser. Track & assess quality throughout your testing lifecycle.

- Capture rich data
- Test across web & desktop
- Get end-to-end traceability

Azure Artifacts :

Create and share Maven, npm, & NuGet package feeds from public & private sources - Fully integrated CI/CD pipeline

- Manage all package types
- Add package to any pipeline
- Share code efficiently.

CI (Continous Integration)	Continuous Deployment (CD)	Continuous learning & Monitoring
Improve software development quality & speed	By combining integration & infrastructure as code (IaC), you'll achieve identical deployment & confidence to deploy to production at any time.	With Azure application Insights you can identify how your applications are performing & find out if the recent deployment made things better or worse.

Azure DevOps provides a suite of tools for software development, including capabilities for Data Engineering projects. Here's how you can utilise Azure DevOps for Data Engineering:

Setting Up Repositories: Start by creating a Git repository within Azure Repos to store your data engineering scripts, configurations, and other related artefacts. This allows you to version control your code and collaborate with your team effectively.

Pipeline for Data Engineering Workflows: Azure Pipelines allows you to create Continuous Integration (CI) and Continuous Deployment (CD) pipelines to automate the build, test, and deployment processes for your data engineering workflows. You can define tasks such as data ingestion, transformation, and loading within these pipelines using YAML or the visual designer.

Integration with Azure Data Services: Azure DevOps integrates seamlessly with various Azure data services such as Azure Data Factory, Azure Databricks, Azure Synapse Analytics, etc. You can leverage these services within your pipelines to orchestrate data workflows, run big data analytics, or perform batch processing tasks.

Testing and Validation: Implement automated testing within your pipelines to ensure the quality of your data engineering processes. This may include data validation checks, schema validation, and functional testing to verify the correctness of your transformations and data pipelines.

Monitoring and Logging: Use Azure Monitor and Application Insights to monitor the performance and health of your data engineering pipelines. Set up alerts to notify you of any issues or anomalies in your data workflows, and leverage logging to track the execution of your pipeline tasks.

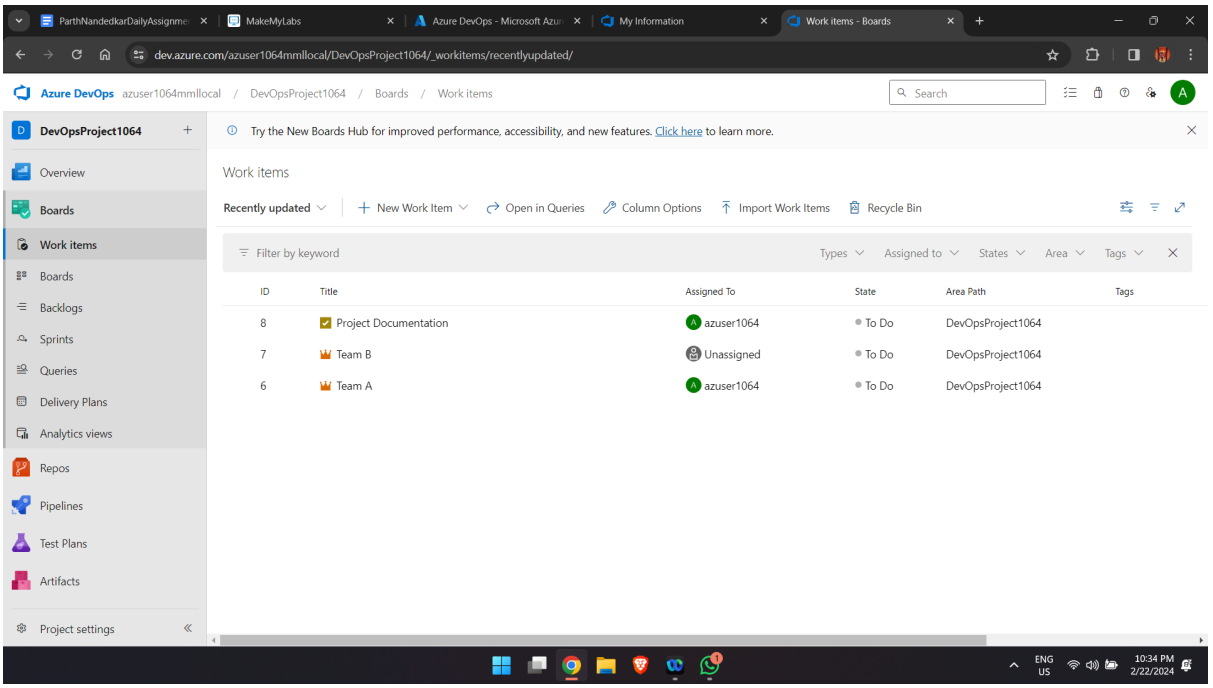
Security and Compliance: Ensure that your data engineering pipelines adhere to security best practices and compliance standards. Implement role-based access control (RBAC), encryption, and other security measures to protect sensitive data throughout the development and deployment lifecycle.

Documentation and Collaboration: Use Azure Boards and Azure Wiki to document your data engineering processes, requirements, and architecture.

Encourage collaboration among team members by sharing knowledge, tracking tasks, and managing project backlogs within Azure DevOps.

By leveraging Azure DevOps for your Data Engineering projects, you can streamline your development processes, improve collaboration, and achieve greater efficiency in building and deploying data solutions on the Azure platform.

Hands On :


Work items - Boards
dev.azure.com/azuser1064mmllocal/DevOpsProject1064/_workitems/recentlyupdated/
Azure DevOps azuser1064mmllocal / DevOpsProject1064 / Boards / Work items
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Try the New Boards Hub for improved performance, accessibility, and new features. Click here to learn more.
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Work items
Recently updated
New Work Item
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Column Options
Import Work Items
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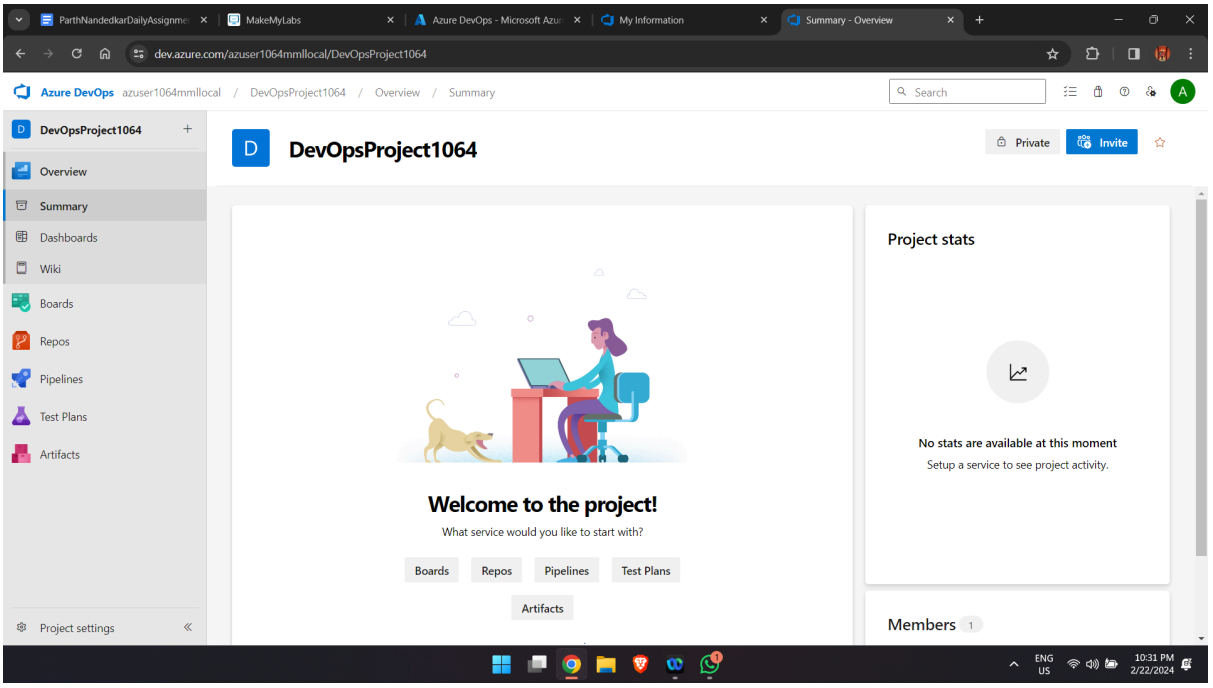
Summary - Overview
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Search
DevOpsProject1064
Overview
Summary
Dashboards
Wiki
Boards
Repos
Pipelines
Test Plans
Artifacts
Project settings
DevOpsProject1064
Private
Invite
Welcome to the project!
What service would you like to start with?
Boards
Repos
Pipelines
Test Plans
Artifacts
Project stats
No stats are available at this moment
Setup a service to see project activity.
Members
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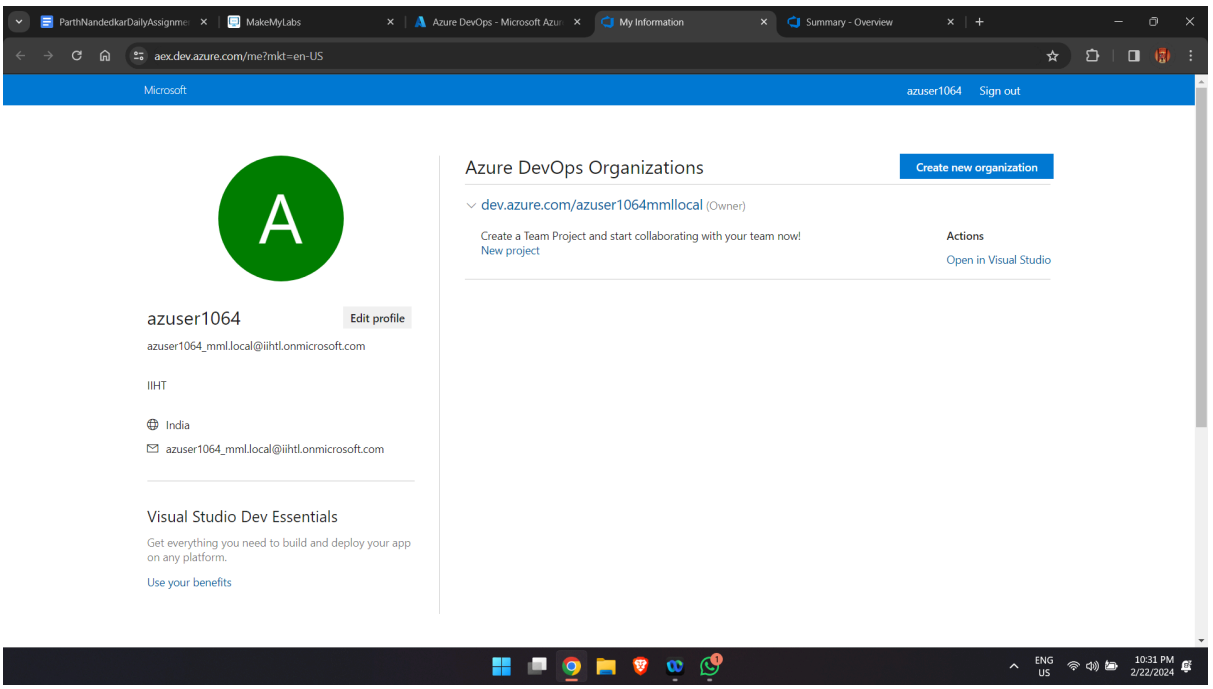
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My Information
Summary - Overview
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Microsoft
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Edit profile
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IIHT
India
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Visual Studio Dev Essentials
Get everything you need to build and deploy your app on any platform.
Use your benefits
Azure DevOps Organizations
Create new organization
dev.azure.com/azuser1064mmllocal (Owner)
Create a Team Project and start collaborating with your team now!
New project
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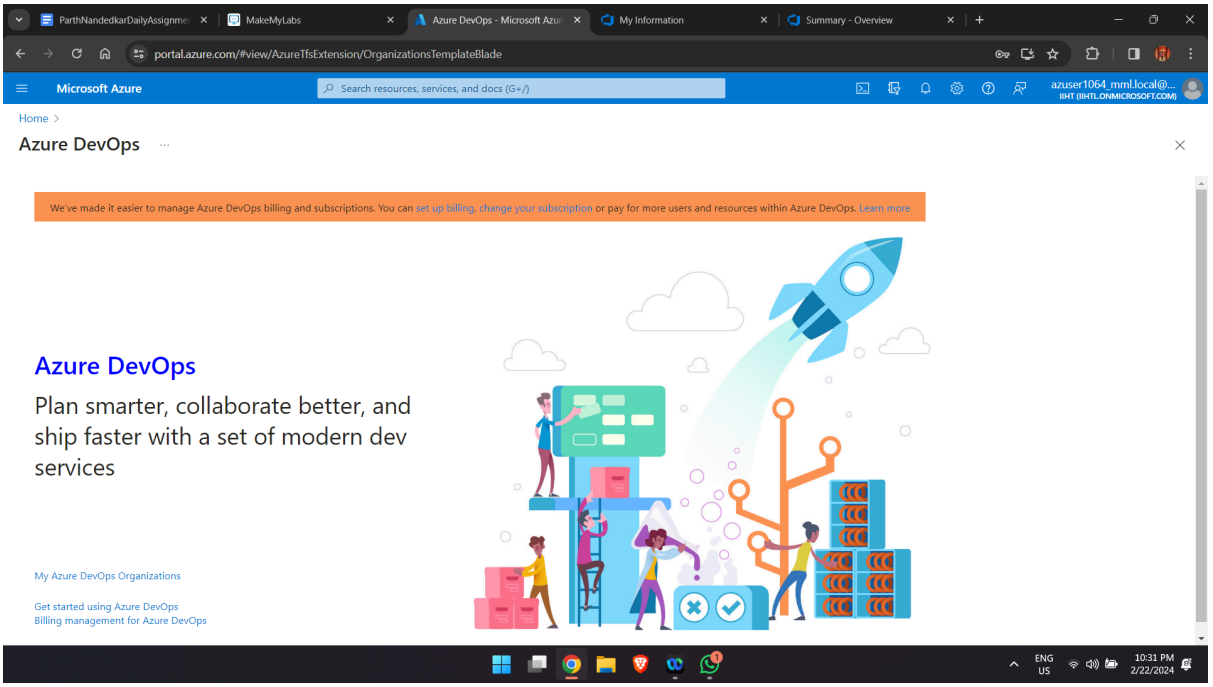
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My Information
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