

# ***Networking and System Administration***

**Automated Container deployment and Administration in the cloud**

**Presented By**

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# Introduction:

This project aims for the automated deployment of Azure Virtual Machine and AWS EC2 Instance using the Automation tools like Terraform, Ansible, OpenSSH, Docker, Containerized Python Application along with automated CI/CD Deployment.

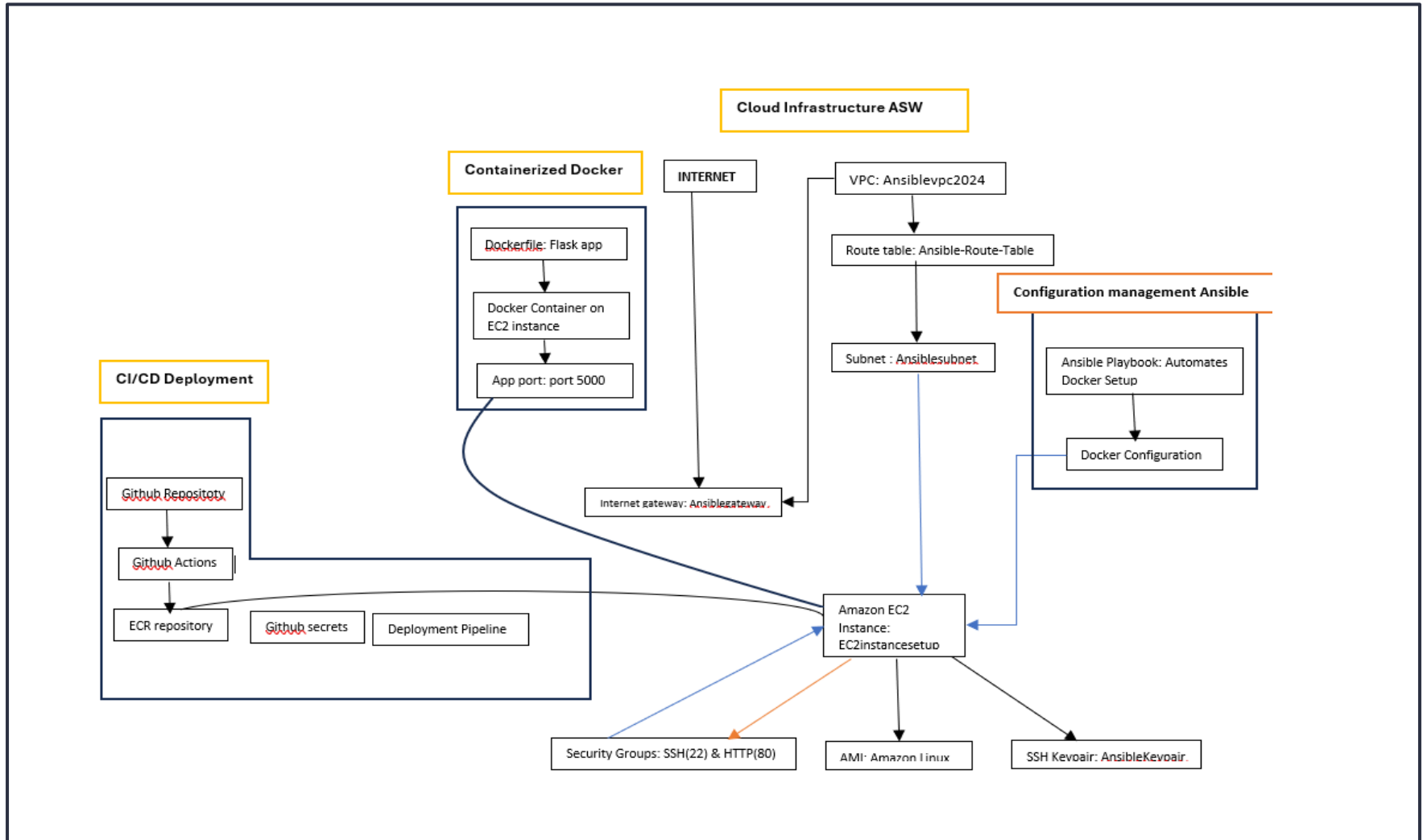
**Note:** This project focuses on reducing the manual intervention just by a single click.

# Tools used:

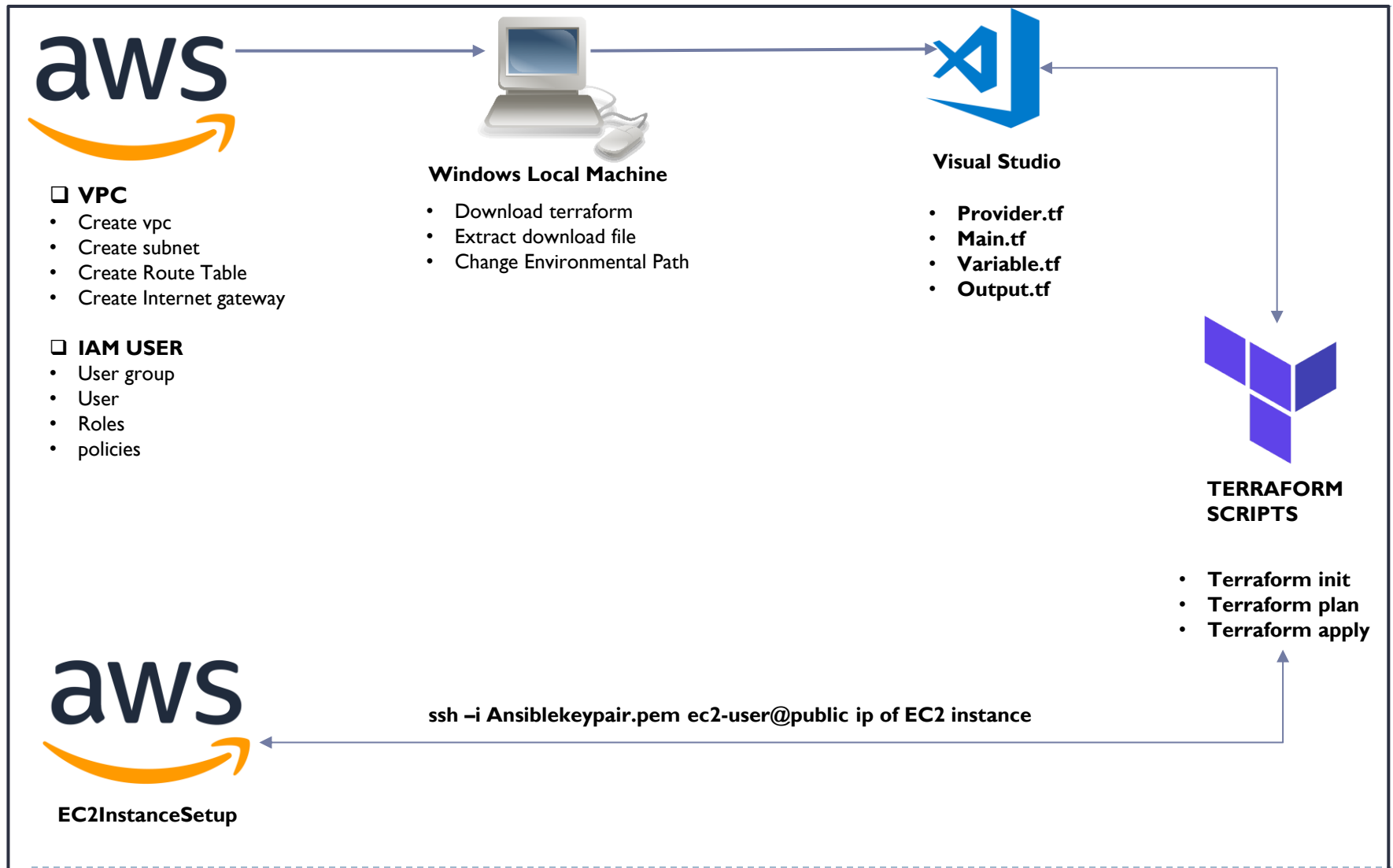
- Terraform
- Visual Studio
- Ansible
- PowerShell
- Docker
- GitHub Action
- Azure CLI
- OpenSSH
- WSL Linux – GitHub Runner



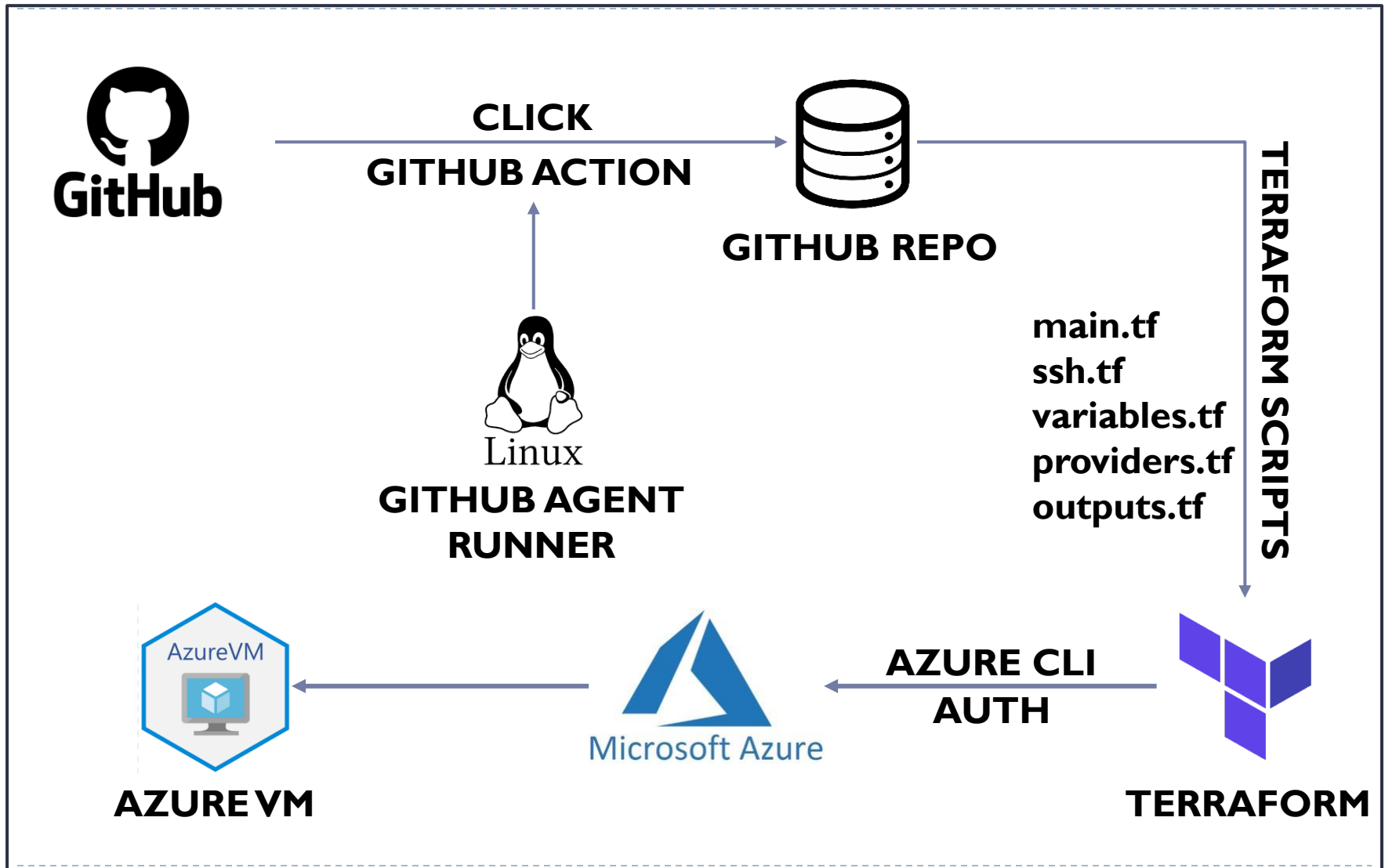
# Part 1: Infrastructure Setup (AWS)



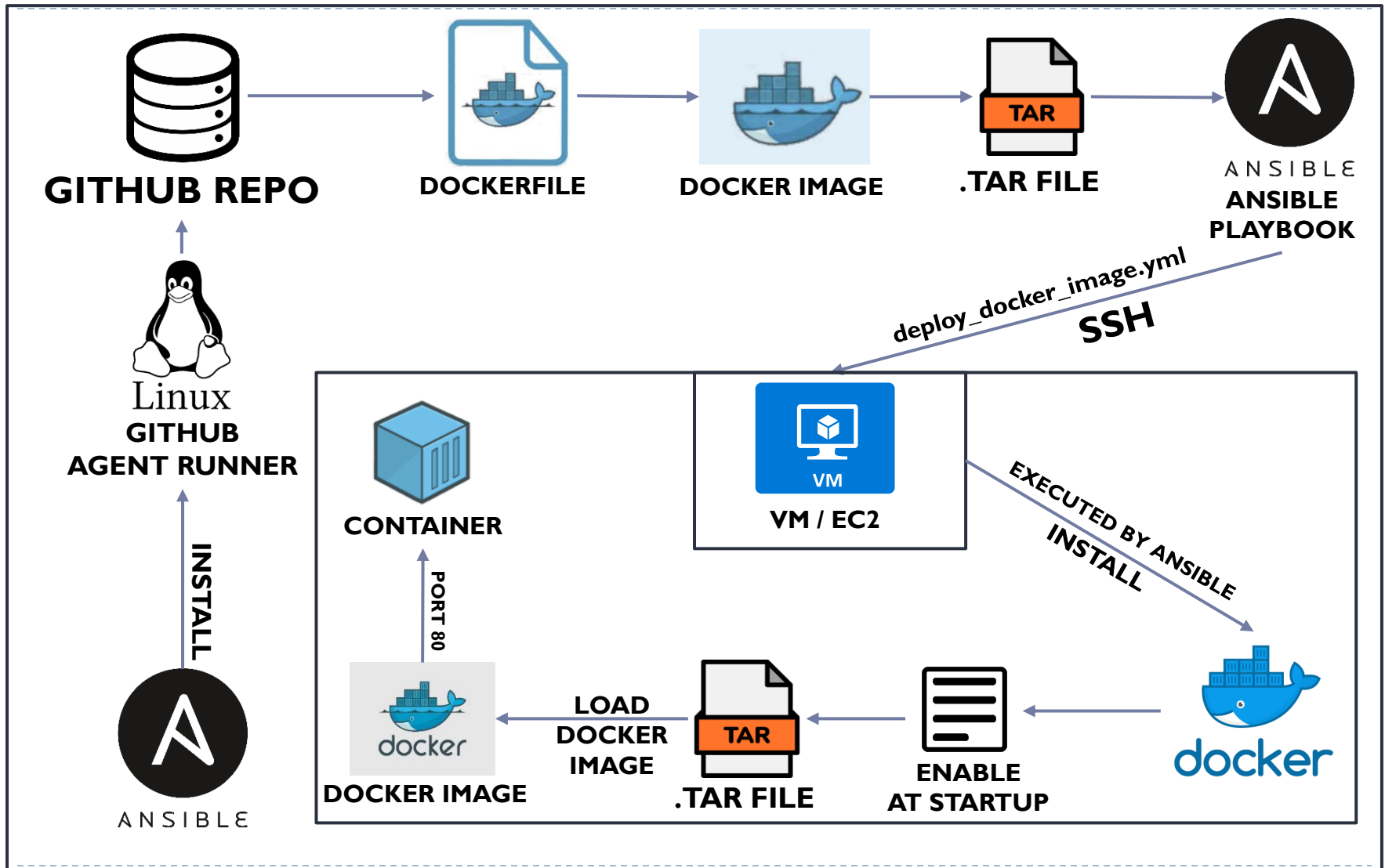
# Part 1: Infrastructure Setup



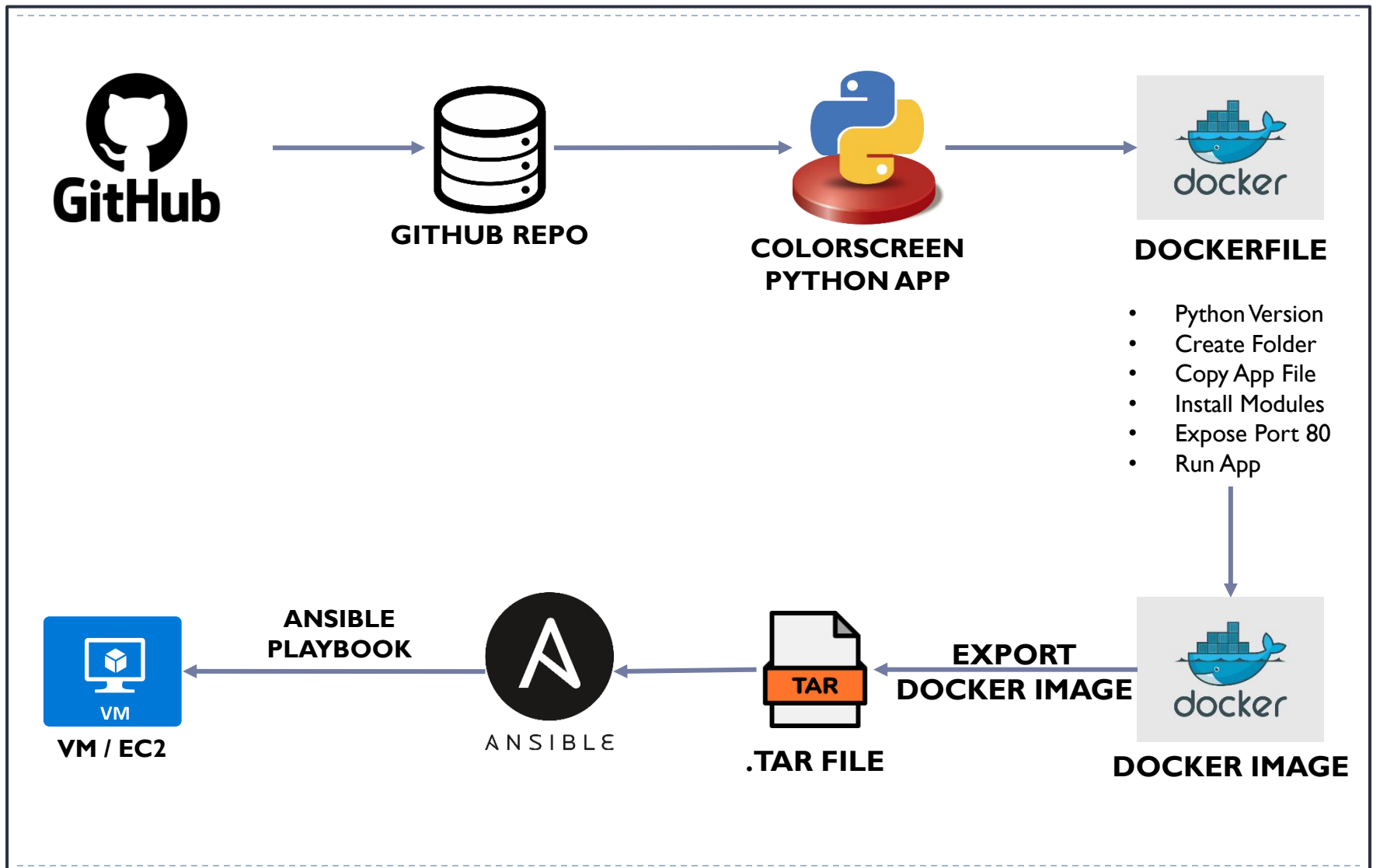
# Part 1: Infrastructure Setup (Azure)



# Part 2: Configuration Management

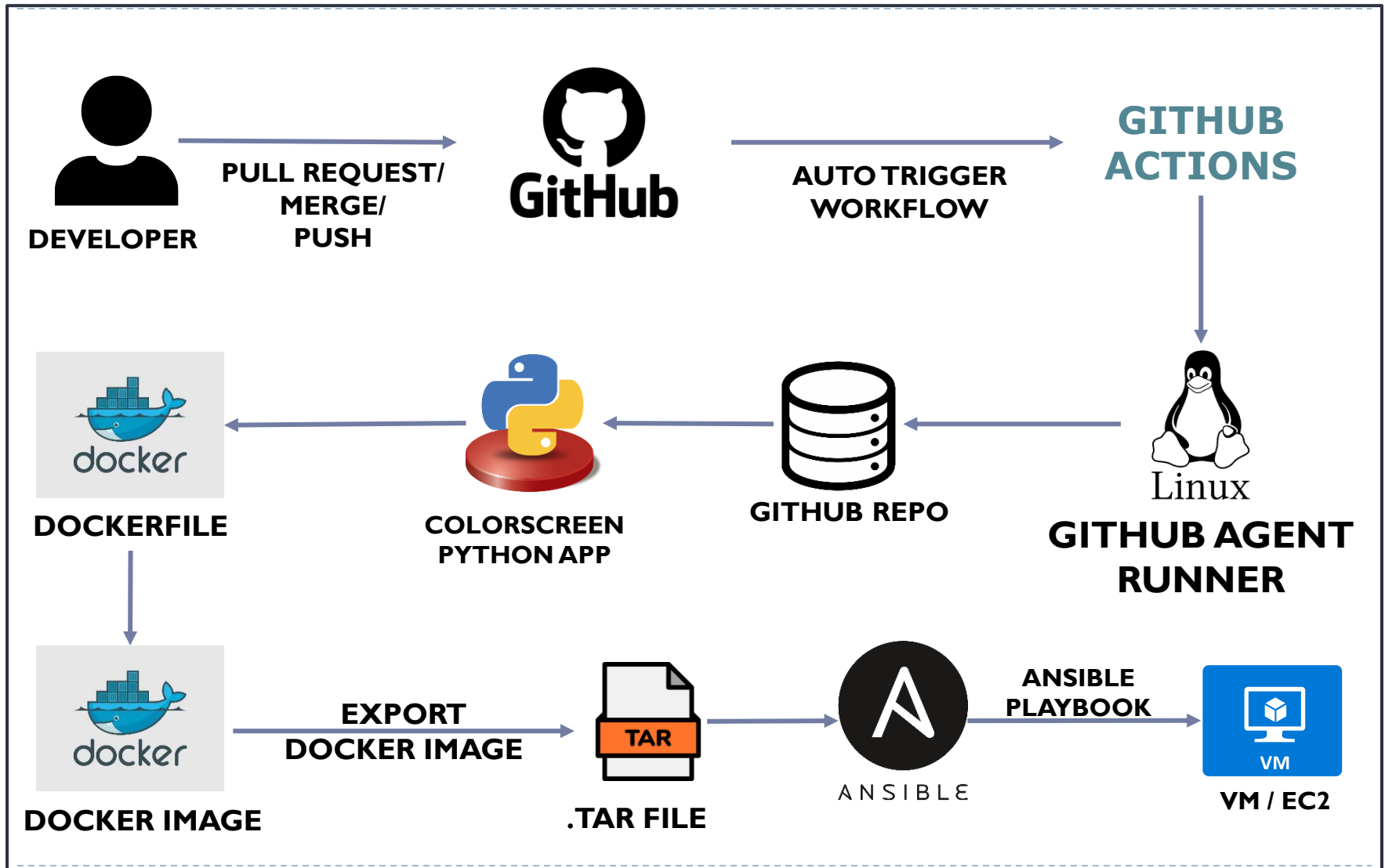


# Part 3: Automated Container App





# Part 4: CI/CD Automation



# Conclusion:

This project demonstrates seamless automation of infrastructure and application deployment using Terraform, Ansible, Docker, and GitHub Actions. It ensures efficiency, reduces manual intervention, and supports real-time deployment of updates.

