**Introduce yourself-**

**Version 1.2**

**Good morning/evening Sir/Ma’am.**

My name is Amit Kumar Verma. I have completed **B. Tech. in CSE**. I’m currently working with **Brindavan Bottlers Pvt. Ltd.** for the past **1 year 3 months**. I have total 7 years of experience in IT, with the last 3 years focused on working as a DevOps Engineer. I have hands-on experience with **Microsoft Azure Cloud, Azure DevOps, CI/CD pipelines, GIT, Terraform and PowerShell.**

~~I have hands-on experience working with Azure Cloud, where I’ve deployed and managed various services including VM, Virtual Networks, Azure Functions, IoT Hub, SQL Databases, and Storage Accounts. I’ve used Terraform extensively for Infrastructure as Code, which has helped ensure consistent and scalable deployments across environments. For CI/CD automation, I’ve worked with Azure DevOps pipelines written in YAML, integrating steps like build, test, and release across different environments. I use Git for version control and branching strategies, and PowerShell scripting for automating routine administrative tasks and environment configurations.~~

Let me first explain the use case, in my current organization, I worked on a project **Borewell Water Consumption Monitoring System**. which aimed to automate and modernize the tracking of water usage across 45 industrial borewells located in various bottling plants. Each borewell could pump up to 60KL of water per hour. Before this project, the water usage was tracked manually, which caused mistakes and delays.

To solve this problem, we installed **flow meters** (Ultrasonic or Electromagnetic Flow Meters) on each borewell to measure how much water was being used in real time. These flow meters were connected to **IoT edge devices**. These edge devices were configured to send telemetry data every minute to **Azure IoT Hub**.

I was responsible for designing and provisioning the entire cloud **infrastructure using Terraform**, so that the deployment of services was automated, repeatable, and consistent across development, test, and production environments.

Once data collected through the **IoT Hub**, we used **Azure Stream Analytics** to process and filter the data in real-time. Processed data was then stored in **Azure SQL Database** for structured reporting, and **Azure Data Lake Gen2** for archival and deep analytics.

To visualize the data, I built interactive **Power BI dashboards** that allowed plant managers to monitor daily water usage for each borewell clearly.

We added automatic alerts using **Azure Functions**, so if a borewell used more water than expected, the team would get notified. We also used **Azure Machine Learning** to try and predict how much water would be needed in the future, and Power Automate to send daily reports automatically.

The infrastructure was designed with strong network security in mind: we created separate **subnets** for IoT, **backend** processing, and databases within an **Azure Virtual Network (VNet**), protected by **Network Security Groups (NSGs)** and **Azure Firewall**. Sensitive credentials and connection strings were managed securely using **Azure Key Vault**, and we used **RBAC policies** to ensure only authorized users and services could access critical resources.

From a DevOps perspective, I implemented end-to-end **CI/CD pipelines** using **Azure DevOps** with **YAML**, which included infrastructure provisioning via **Terraform**, deployment of Azure Functions and Stream Analytics jobs, and validation checks. These pipelines helped our development team push changes more frequently and with fewer issues, as everything from infrastructure to code deployment was automated and tested.

For monitoring and observability, we used **Azure Monitor**, **Application Insights**, and **Log Analytics** to track telemetry from all services. I set up custom dashboards and alert rules so that any failure in data ingestion, function execution, or resource performance would be detected and flagged immediately.

In parallel with this, we also worked on **electricity cost Monitoring Dashboard**. We integrated **energy meters** using the **same IoT architecture** to collect data on electricity usage. This helped plant teams identify peak usage periods and optimize load distribution, leading to cost savings.

I also implemented **Motor Running Hours Monitoring** using **IoT-based sensors** to capture operating time of motors. This data was used for predictive maintenance planning and helped reduce unnecessary runtime, avoid breakdowns, and save energy.

The overall impact of this project was significant. It replaced a completely manual and error-prone process with a fully automated, real-time monitoring and alerting system.

It improved resource efficiency, reduced water and energy waste, and gave plant managers deep insights into operations through powerful dashboards and predictive analytics.

From a **DevOps standpoint, it demonstrated how cloud automation, infrastructure-as-code, CI/CD, and observability can come together to support a highly scalable and secure industrial solution**.

**Version 1.0**

Good morning, Sir/Ma’am.

My name is Amit Kumar Verma. I have 7 years of experience in IT, with the last 3 years focused on DevOps and Azure Cloud. Currently, I am with Brindavan Bottlers Pvt. Ltd., where I've been working for the past 1.3 years.​

I have hands-on experience with Microsoft Azure Cloud, Terraform, Azure DevOps, CI/CD pipelines, and PowerShell scripting.

Here I worked on a project Borewell Water Consumption Monitoring System. Automating the water usage tracking for 35 borewells across different plant locations. Each borewell could pump up to 65 kiloliters of water per hour. Before this project, the water usage was tracked manually, which caused mistakes and delays.

To fix this, we installed flow meters on each borewell to measure how much water was being used in real time. These meters were connected to IoT devices (IoT edge devices) that sent the data to the cloud every minute. We used **Azure IoT Hub** to collect all this data.

After that, the data was processed using **Azure Stream Analytics** and saved in **Azure SQL** and **Data Lake** so we could analyse it later. I also created a live dashboard using **Power BI**, where we could see the daily water usage for each borewell clearly.

We added automatic alerts using **Azure Functions**, so if a borewell used more water than expected, the team would get notified. We also used **Azure Machine Learning** to try and predict how much water would be needed in the future, and **Power Automate** to send daily reports automatically.

This project helped reduce water waste, improved monitoring, and made everything more efficient. It also gave me good hands-on experience with IoT devices, cloud computing, and real-time dashboards using Microsoft Azure."

If I talk about my previous company, I used Azure cloud services to deploy resources as needed, I used to terraform as IaC tool to deploy resources easily and faster.

In parallel, I worked on an **Electricity Bill Monitoring Dashboard** to track energy consumption across various sections of the manufacturing plant. This helped identify peak usage times and inefficiencies, leading to better load balancing and reduced energy costs.

We also implemented a system to monitor **Motor Running Hours** using current sensors and IoT integration. This data was crucial in optimizing pump schedules, reducing unnecessary motor operation, and planning predictive maintenance—ultimately extending equipment life and lowering operational costs.

Together, these initiatives improved resource efficiency, reduced wastage, and provided actionable insights to plant managers.

**Introduce yourself-**

**Version 1.1**

Good morning, Sir/Ma’am,  
My name is **Amit Kumar Verma**, and I bring **7 years of experience in IT**, with the last **3 years dedicated to DevOps and Microsoft Azure Cloud**. Currently, I’m working at **Brindavan Bottlers Pvt. Ltd.**, where I’ve been for the past **1.3 years**.

My core skill set includes **Microsoft Azure**, **terraform (as an Infrastructure as Code tool)**, **Azure DevOps**, **CI/CD pipeline automation**, **PowerShell scripting**, and managing cloud-native solutions for enterprise applications.

One of the most impactful projects I led was the **Borewell Water Consumption Monitoring System**, where we automated the tracking of water usage across **35 borewells** in our manufacturing plant. Each borewell could pump up to **65 kiloliters/hour**, and earlier tracking was done manually, leading to errors and inefficiencies.

We deployed **IoT edge devices** and **flow meters**, which sent real-time telemetry to **Azure IoT Hub**. Using **Azure Stream Analytics**, we processed the data and stored it in **Azure SQL** and **Data Lake** for reporting and analysis. I automated alerting with **Azure Functions**, and used **Power BI** to build a real-time dashboard for visibility. We also integrated **Azure Machine Learning** to forecast water demand and **Power Automate** to handle scheduled notifications.

As a DevOps engineer, I was responsible for automating the entire infrastructure deployment using **Terraform**, ensuring consistency and speed in provisioning Azure resources across environments.

In parallel, I developed an **Electricity Bill Monitoring Dashboard**, integrating energy meter data to analyse power consumption patterns. This helped plant teams identify **peak usage periods** and optimize load distribution, leading to **cost savings**.

I also implemented **Motor Running Hours Monitoring** using IoT sensors to capture operating time of motors. This data was used for **predictive maintenance planning** and helped reduce **unnecessary runtime and energy usage**.

These projects not only enhanced operational efficiency but also strengthened my expertise in **cloud automation, infrastructure provisioning, IoT integration, and monitoring**

"Good morning, Sir/Ma’am. My name is Amit Kumar Verma. I bring 7 years of IT experience, with the last 2 years specializing in DevOps and Azure Cloud. Currently, I am with Brindavan Bottlers Pvt. Ltd., where I've been contributing for the past 1.3 years.​

In my role, I've gained practical experience with:​

* **Microsoft Azure Cloud:** Utilizing services like Azure Functions, IoT Hub, and Azure SQL for cloud-based solutions.​
* **Terraform:** Implementing Infrastructure as Code (IaC) for consistent and automated provisioning.​
* **Azure DevOps:** Managing CI/CD pipelines, version control with GitHub, and automating workflows.​
* **PowerShell:** Automating administrative tasks and configurations.​
* **Azure Security & Monitoring:** Implementing Microsoft Defender for Cloud, Azure Key Vault, and utilizing Azure Monitor and Sentinel for comprehensive monitoring and threat detection.​
* **Version Control & CI/CD:** Managing source code and automating workflows using Azure Repos and GitHub, integrating GitHub Advanced Security for code scanning and dependency analysis.​

A notable project I led was the **Borewell Water Consumption Monitoring System**, where we automated water usage tracking for 35 borewells across different plant locations. Each borewell could pump up to 65 kiloliters of water per hour. Previously, water usage was tracked manually, leading to inaccuracies and delays.​

To address this, we installed flow meters on each borewell to measure real-time water usage. These meters were connected to IoT edge devices that transmitted data to the cloud every minute via Azure IoT Hub. The data was processed using Azure Stream Analytics and stored in Azure SQL and Data Lake for analysis. I developed a live dashboard using Power BI to visualize daily water usage for each borewell.​

We implemented automatic alerts using Azure Functions to notify the team if a borewell used more water than expected. Additionally, we employed Azure Machine Learning to predict future water demand and used Power Automate to send daily reports automatically. This project significantly reduced water waste, improved monitoring, and enhanced operational efficiency.​

In my previous role, I utilized Azure cloud services to deploy resources as needed and employed Terraform as an Infrastructure as Code (IaC) tool to deploy resources efficiently and consistently.​

I'm eager to leverage my skills in cloud security, monitoring, version control, and DevOps practices to contribute effectively to your team.