3 Tier applicaiton - Todo App

Frontend ReactJS → **Backend Python** → **Database Microsoft SQL Server**

Source Code — build — Build Artifacts nginx — 51.23.56.98 ✓

Source Code — 56.78.42.65

Purana Data — Load karke — Azure Data Factory ETL - Extract Transform Load — Nai jagah bhjna — 98.56.45.21

1. Creation of VM in backend-subnet
2. Developer ke saath call set karke application ko smjhenge
3. README padke sare steps ko execute karenge
4. POSTMAN And API kya hota hai?

1. Creation of SQL Server DB
2. Thoda bahut data insert karke dekhenge

| Overall | DB Setup | Backend Setup | Testing Backend and DB using Postman | Connecting Backend and Frontend | Hit Frontend Public IP and access applicaiton |

Starbucks

Dhondhu - 1 June
Tondu - 9 May
Kondu - 14 Feb
1 lakh aadmi ki bdate

SQL - Structured Query Language

Database - SQL

Database ek software jo Data Store ko karne ka aur retrive karne ka ek feature deta hai..

Database ek aisa system jaha aap Structured Data ko store karte hai, manage karte hai aur usko access karte hai..

Store → Table / Schema

Retrive → **SQL - Structured Query Language**

Name	DOB	Mobile
Dhondhu	1 June	8888877777
Tondu	9 May	5555566666

1 lakh aadmi ki bdate

HCL - Blocks ke form me kaam karti hai
SQL - Query ke form me kaam karti hai..

SELECT * FROM DOBS

Microsoft — SQL Server — PAID/LICENSE

Open Source — MySQL Server / PostgreSQL

Platform Use a Service Azure SQL Server

PostgreSQL | MySQL Server | **SQL Server ghatak done** ✓

SQL Database 1 | SQL Database 2

TAble1 | TAble2 | TAble1 | TAble2

Column1 | Column2 | Column3
Row1
Row2
Ro3

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1. Create SQL Server
2. Create SQL DB inside server
3. Connect to SQL Database

MYSQL | Postgres

Azure Portal ✓ | SQL Server Management Studio — **HW** | MYSQl Workbench | PGADMIN

4. Create table using SQL query.

EmployeeID	Name	Mobile

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1. What does todo application do?

Frontend ✓ | Database ✓

http://56.45.98.45

Todo App

Pani Pina hai
Black Water Pina hai
Add Task

https://github.com/devopsinsiders/PyTodoBackendMonolith

Backend Python

Task no	Task Name	Task Description
101	School	Bacche ko school se lene jana hai
102	Pani Pina hai	Black Water Pina hai

Backend Setup

1. Create VM

publisher = "Canonical" offer = "0001-com-ubuntu-server-focal" sku = "20_04-lts" version = "latest" }

2. Clone Python in Computer and Read README

3. Install Python and Pip

4. app.py karke file me connection string update karenge

facebook.com	URL , ID , PASSWORD
instagram	URL , ID , PASSWORD
gmail	URL , ID , PASSWORD

Clone Frontend Repo ✓
npm install, npm run build
artifacts
build

Clone Backend Repo ✓
CONNECTION STRING
app.py

8000

build artifacts nginx — scp — build artifacts Python and pip ✓ — scp

Ubuntu 22.04 Frontend VM
Ubuntu 20.04 Backend VM 135.235.172.144

SQL Server
Database
URL + username + PASSWORD

Source Code	Dependencies	Build Tool	Artifacts Type	Server Type (deployment)
Angular/React JS	npm install/package.json	tool = npm npm run build	.html , .css, .js	nginx
Java	pom.xml	tool = maven mvn clean	.jar , .war	tomcat
dotnet	csproj	dotnet build and publish, msbuild	.dll	iis, dotnet runtime
Python	requirements.txt	pip	No Artifacts	Uvicorn
Terraform(smjhane ke lie)	provider.tf	terraform init	No Artifacts	Azure, GCP, AWS