Project Works

Virim Infotech (2019-07 - Present)

1) Azure infrastructure Migration (Azure cloud):

- Migrated existing Azure azure VMs and servers for specific client applications to another Azure account.
- Handling calls with customer to get flows and understand issues incountered.
- Azure services such as VMs, Vnet, Disk, Azure storage etc setup.
- Migrated server setup
- SQL database migration
- Azure Storage migration
- Technologies used in the project: Azure Windows VM, Apache tomcat, Azure Storage, Azure SQL server, Java framework, SQL

2) Revenue Data Analytics platform (SAAS, ETL, AWS, Cloud Automation) :

- Revenue Analytics Platform for analysis of different stages of revenue cycle management of various Patient Management Systems.
- Designe and develop a highly scalable ETL solution which could be provided as SAAS. The solution developed offers:
    a. Seamless integration of the new PM system.
    b. Archived throughout 40GB/hour for processing raw data.
    c. One click deployment of cloud infrastructure.
    d. Cost effective (~$500/hour for processing ~1 TB of data daily)
    e. Easy scheduling, management and monitoring of ETL jobs.
    f. Highly secure
    g. Hippa complaint
- Data validation and testing
- Project management and managed team of 4 memebers.
- Provided training to team members.
- Technologies used in the project are Pyspark, SQL, Airflow, python, bash. Cloud services used are AWS Redshift, EC2, S3, Transfer Family etc.

3) Redesigning and optimization of existing ETL process for 10+ connectors (ETL):

- Redesigned existing ETL processes for 10+ different connectors.:
- Reduced the complexity of ETL processes and made it generic for all connectors.
- Reduced the ETL timing from a day to 4 hours.
- Modularized code with better readability and error tracking and logging
- Migrated the database from the cluster of postgres servers to Redshift.
- AWS services such as Redshift, EC2, S3 etc setup.
- Provided training to team
- Guiding team for new features impmentation and resolving issues
- Technologies used in this project are python, bash, SQL etc. Cloud Services used are AWS Redshift, EC2, S3 etc

4) EDI (835/837) File Processing (ETL and Django):

- Bulk processing of EDI (835/837) files.
- Containerize the applications including file processing scripts, web server, redis, postgres, Celery workers, Nginx and certbot.
- Developed a reliable solution for triggering processing events when a file received via FTP.
- Parallel processing of files and tracking.

- Django REST API interface to fetch out, track file status and roll back.
- Technologies used in this project are Python, Django, Docker, Nginx, Cerbot, Celery, Redis etc.

5) Patient CRM Portal (Django)

- CRM web application that manages patients from different organizations.
- Handling calls with customer to undertand new requirements and guiding team.
- Functionalities on which I worked on this projects are:
    a. Containerization of application
    b. Azure directory authentication
    c. Send scheduled appointment reminders via call and SMS,
    d. In browser send and receive call and SMS,
    e. Find best Health center for scheduling on the basis of patient geolocation,
    f. Track schedulers performance
    g. bulk data import via REST API etc.
    h. User activity tracking on website
    i. Request tracking, IP tracking and blocking
    j. Rate limit per Django view
    k. CI/CD using Github Action
- Technologies used are Django, ORM, PL/SQL, celery, redis, AWS postgres, javascript, jquery etc.
- Cloud services used are Azure Virtual Machine, Azure Postgres flex service, Azure Bucket, Azure Active Directory, Azure API management service, Twilio, Signal Wire, Github Action etc

6) Data Warehouse (Django)

- CRM tool for employees for event scheduling and tracking, KPI etc
- Handling calls with customer to undertand new requirements and guiding team.
- Containerization of application
- Integration with salesforce
- Integration with Azure Active Directory, group and role management
- Bug fixes, maintenance, security and new features.
- CI/CD via github action etc
- Technologies used are Django, ORM, PL/SQL, celery, redis, AWS postgres, javascript, jquery etc.

7) MIKAMI RESTAURANT DISH TIME (Django)

- Web and mobile application for tracking record of served and removed plates. Generate analysis day wise dishes served.
- Handling calls with customer to undertand new requirements and guiding team.
- Developed web pages and REST API
- Server setup and deployment
- Database design
- Understanding customer requirement and guiding team.
- Helping team in technical design, implementing features/requiments and resolving technical issues.
- Code reviews and production deployments
- Guiding team in technical design and helpi
- Technologies used in the project are Django,ORM, SQL, celery, redis, postgres, javascript, jquery etc.

8) Payment Collection System (Django):

- Payment management system to track the payment and schedule payment notifications.
- Handling calls with customer to undertand new requirements and guiding team.

- Helping team in technical design, implementing features/requiments and resolving technical issues.
- Code reviews and production deployments
- Technologies used in the project are Django, ORM celery, redis, postgres, Twilio, AWS SNS service etc.

9) E-Farm (Flask) (IoT)

- Remote place farm house real time monitoring in 4k where network connectivity is issue, Also Speaker Announcement via phone call)
- Technologies used in the project are Python, Flask, Javascript, Postgres, Html., Css

10) Kratinn (Django, python packages pypi, Google Assistant, Alexa, IoT)
(dashboard.kratinn.com, https://play.google.com/store/apps/details?id=com.virim.virimio)

- Dashboard for controlling different kinds of IoT devices such as smart switches and other switching appliances.
- The dashboard includes web application, desktop and android application.
- Web, desktop application, and Rest API development
- Integration with IoT devices, Google Assistant and Alexa
- System and database design
- Real time scheduling system for triggering IoT devices
- Technologies used in the project are Django, celery, redis, postgres, MQTT, javascript, jquery, AWS Alexa, AWS Lambda, AWS OAuth, Google DialogFlow, Google Assistant etc.
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11) Spell Checker Chrome Extension (Javascript):

- Developed a chrome extension that can check spelling mistakes in any website. The extension contains build in dictionary so that no data can be leaked to any external source.

12) Azure Infrastructure Automation (.NET):

Automate Azure infrastructure (Vnet, subnet, Blob Storage, SQL server and SQL database) creation in .NET

13) Creating VM's on HPC and management (Django and Airflow)

- System desiging based on requirment and demoastrated POC
- Technical lead

14) GFE (AWS serverless API endpoint, lambda, Cognito) (Android Interface)
15) Google Drive and Chat integration for Odoo (Python)
15) WOL (IoT)
16) Smart Switch (IoT)
17) Auto dispenser (IoT)
18) Angular (Diagram Flow, javascript, python and pandas)
19) React (Analytical Dashboard)
20) Utilities (Server monitor)
21) GPG encryption utility
22) WOLapp (pypi package)
23) Json Splitter (Large Json file splitter GUI based)
24) Vsql: Command line utlitiy for quering Redshift like psql.
25) s3_utlitiy: Generic command line utlity for performing copy, delete, list and upload operations. Used in multiple projects

Personal Projects

1) **Duri Niyantrak**
    - IoT hub which provided interface where technical users can register their device and control them in real time
    - Technologies used in the project are Django, celery, redis, sqlite, Django-channels, web-socket, ORM

2) **Bakar-Bakar (Real Time Messaging App)**
    - Online messaging service similar to Slack. Users can sign into the app, can create channels (i.e. chat rooms) to communicate in, as well as see and join existing channels. Once a channel is selected, users can send and receive messages in real time. Also, can share files and images. TOOLS AND Technologies used in the project are: HTML, CSS, JavaScript, AJAX, Socket.IO, Flask

3) **Pinnochio’s Pizza & Subs Need Or Problem**
    - Web application for handling a pizza restaurant’s online orders. Users can browse the restaurant’s menu, add items to their cart, and submit their orders. Meanwhile, the restaurant owners will be able to add and update menu items, and view orders that have been placed.
    - Technologies used in the project are: HTML, CSS, JavaScript, Django, ORM