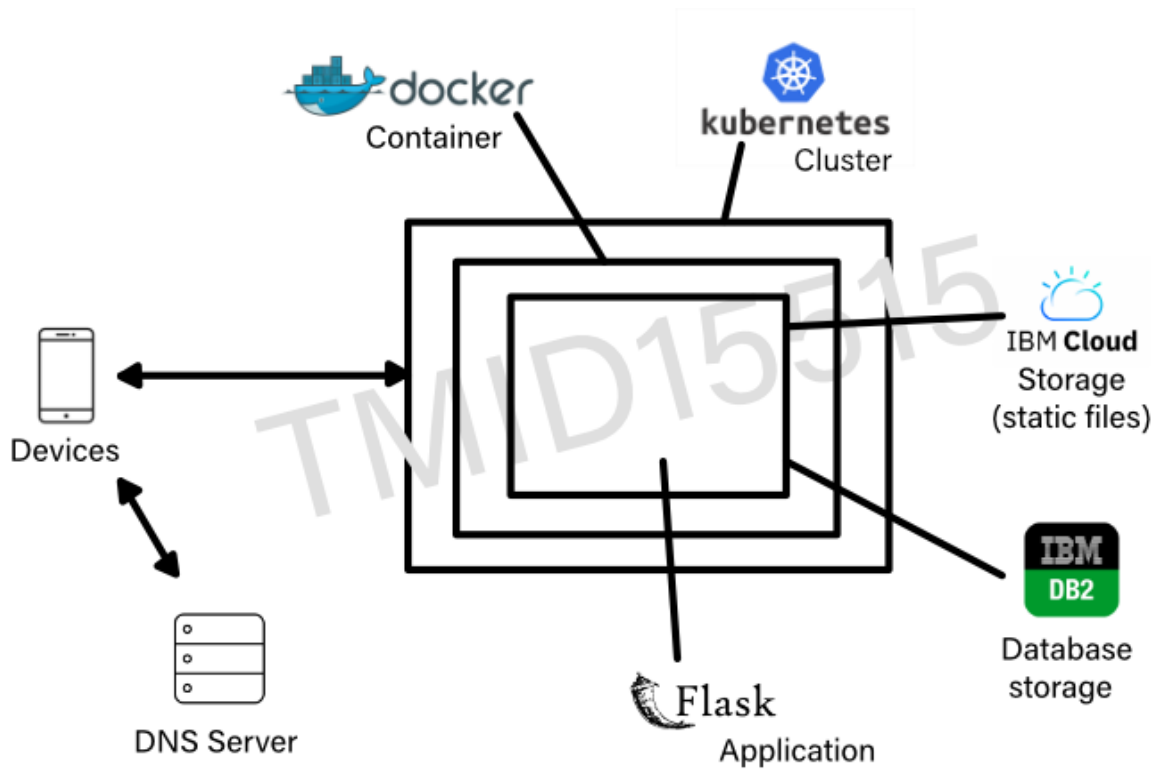


Project Design Phase-II

Technology Stack (Architecture & Stack)

Date	14 October 2022
Team ID	PNT2022TMID15515
Project Name	Project - Personal Expense Tracker
Maximum Marks	4 Marks

Technology Architecture



Technology Stack

Component	Description	Technology
User Interface	How user interacts with application e.g. Web UI, Mobile App, Chatbot etc.	HTML, CSS, JavaScript and Jinja
Backend	Backend operations	Python(Flask)
Chatbot	Chat assistance for users	IBM Watson Assistant
Database	Data Type, Configurations etc.	MySQL, NoSQL
Cloud Database	Database Service on Cloud	IBM DB2, IBM Cloudant etc.
External API : Sendgrid	To notify users via mail	Twilio Sendgrid
Infrastructure (Server / Cloud)	Application Deployment on Cloud	Kubernetes Cluster, Docker Container

Application Characteristics

Characteristics	Description	Technology
Open-source Frameworks	Open-source framework for developing web application	Flask
Security Implementations	Secure data transaction and authentication	SHA-256, Encryptions, IAM Controls
Scalable Architecture	handle a growing amount of work by adding resources to the system	Kubernetes, IBM Cloud

Availability	Use of load balancers, distributed servers	IBM Cloud load balancers
Performance	Application should handle concurrent users and not make users have bad experience	Nginx(400k-500k requests)