Project Design Phase-II
Technology Stack (Architecture & Stack)

Date	12 October 2022
Team ID	PNT2022TMID39818
Project Name	Plasma Donar Application
Maximum Marks	4 Marks

Technical Architecture:

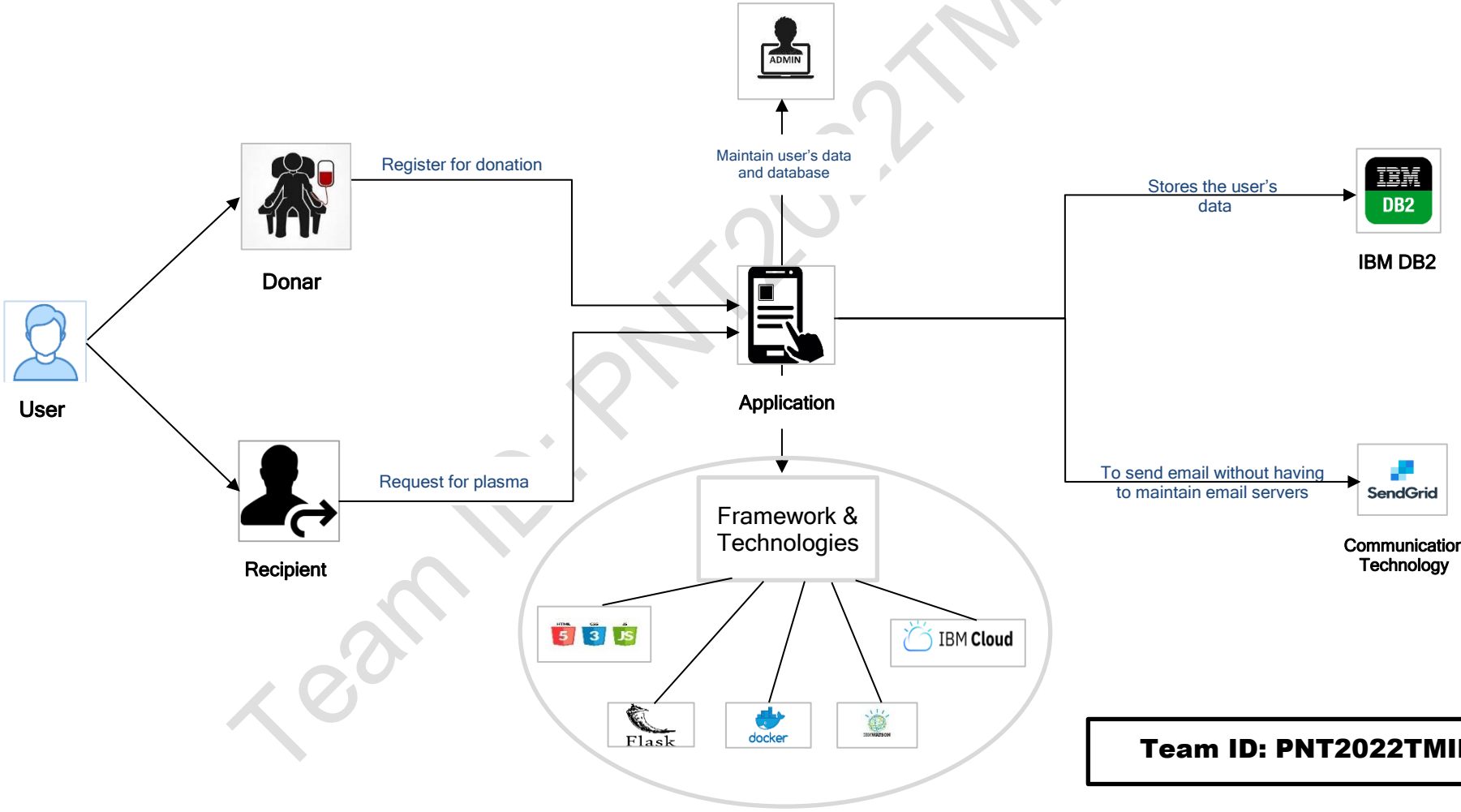

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Table-1: Components & Technologies:

S. No	Component	Description	Technology
1.	User Interface	The interaction between the user and application e.g.,Web UI, Mobile App, Chatbot etc.	HTML, CSS, JavaScript / Bootstrap etc.
2.	Application Logic-1	Framework used for design the application.	Python, Python - Flask
3.	Application Logic-2	Accessing the cloud and storing the details of the users both donors and patients.	IBM Cloud, IBM DB2
4.	Application Logic-3	Docker is an open-source platform for building, deploying, and managing containerized applications.	Docker
5.	Database	Data Type, Configurations etc.	SQL.
6.	Cloud Database	Database Service on Cloud	IBM Cloudant, IBM DB2 etc.
7.	File Storage	File storage requirements	IBM Block Storage or Other StorageService or Local Filesystem
8.	External API-1	They make it easier for developers to store, manage and deploy container images.	Container Registry
9.	Machine Learning Model	Purpose of Machine Learning Model	Object Recognition Model, etc.
10.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud	Local, Cloud Foundry, Kubernetes, etc.

Table-2: Application Characteristics:

S. No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Python – flask is an open-source framework used to develop the application.	Python - Flask
2.	Security Implementations	Container registry and Kubernetes Cluster are used for encryption of data.	Container registry and Kubernetes Cluster
3.	Scalable Architecture	Kubernetes Cluster allow containers to run across multiple machines and environments.	Kubernetes Cluster
4.	Availability	Kubernetes Cluster provides all time availability.	Kubernetes Cluster
5.	Performance	Docker improves the application performance.	Docker