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

Date	18 October 2022
Team ID	PNT2022TMID32045
Project Name	Project – Plasma Donor Application
Maximum Marks	4 Marks

Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table1 & table 2
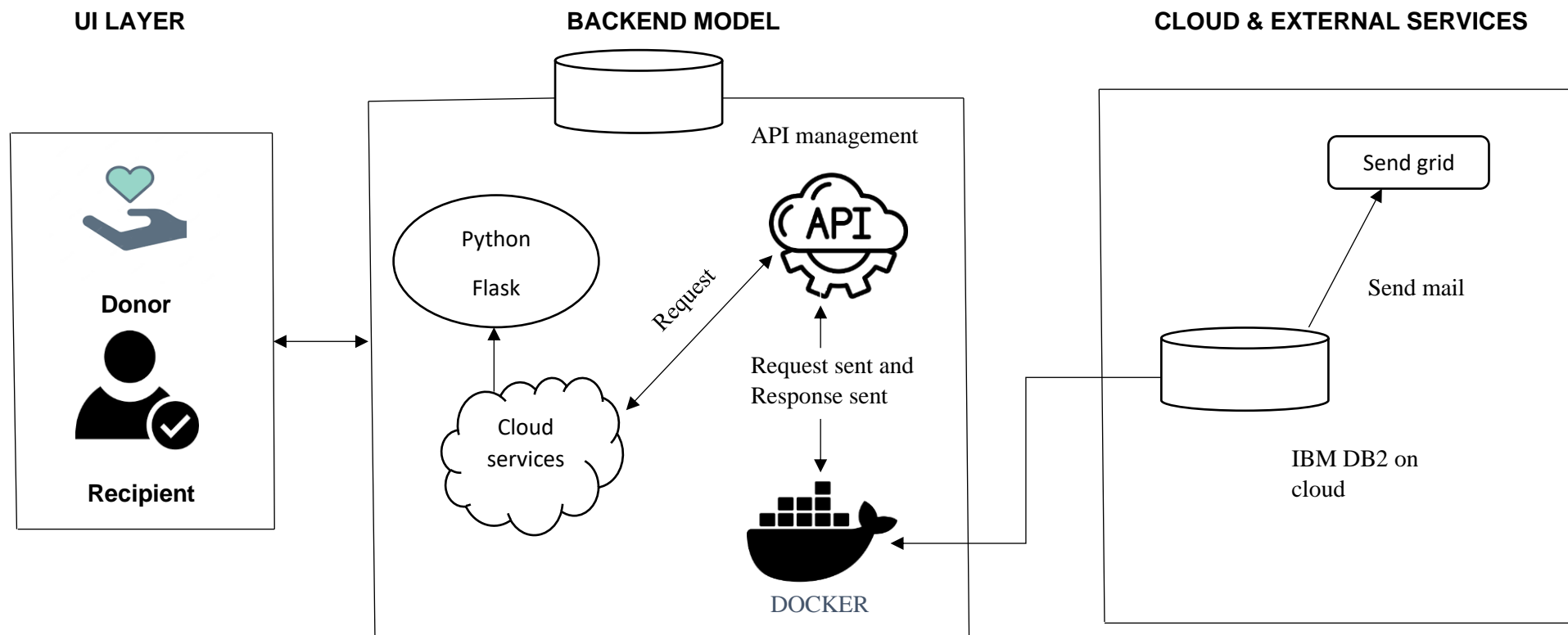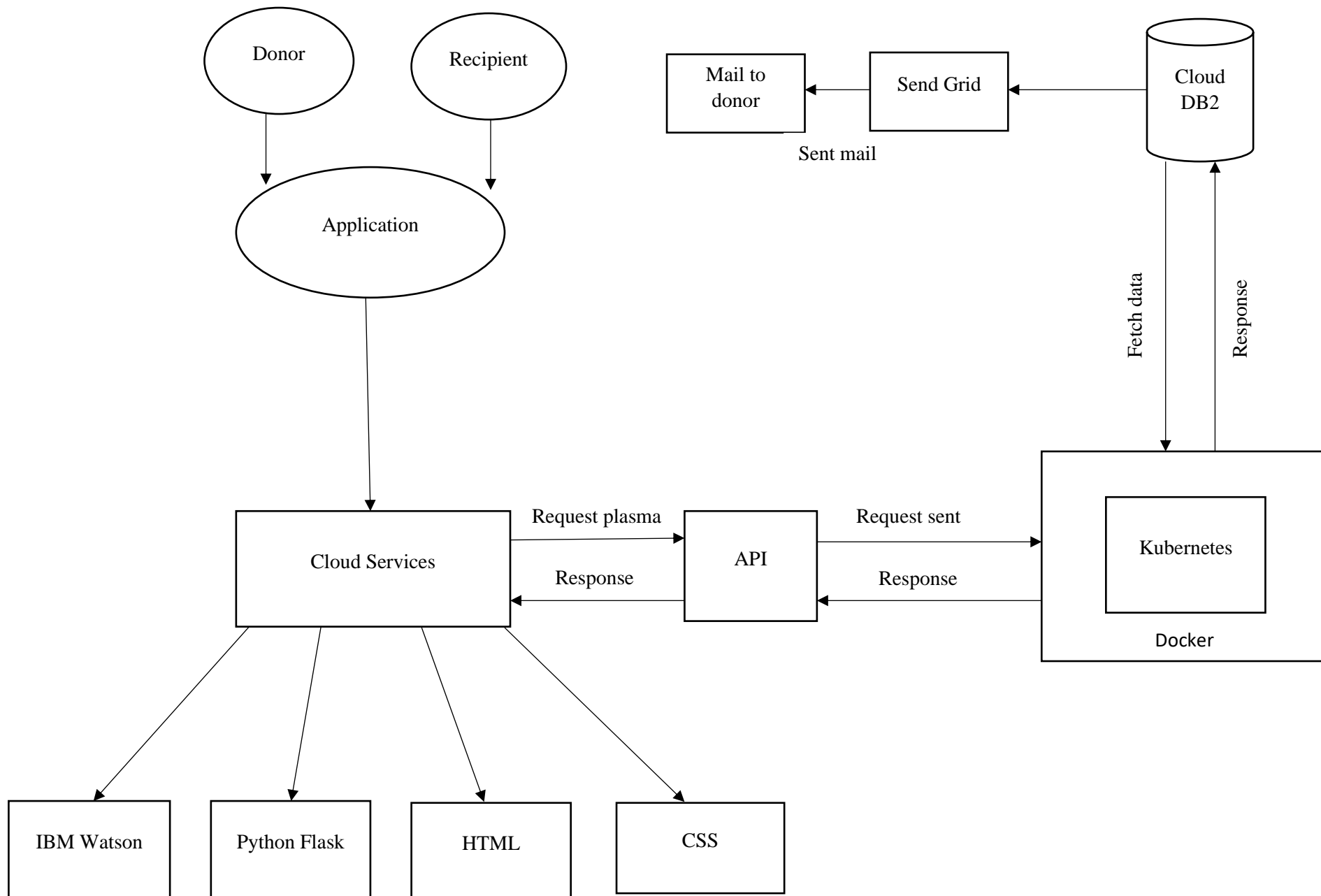
Table-1: Components & Technologies:

S. No	COMPONENT	DESCRIPTION	TECHNOLOGY
1.	User Interface	The user register and login. See the UI.	HTML, CSS, python Flask
2.	Data Maintenance	Store, maintain, retrieve the user's details	MySQL
3.	Chatbot	Clarify the queries	IBM Watson service
4.	Confirmation mail	Sending the confirmation email to users who registered	SendGrid
5.	Cloud Database	Cloud database to store plasma information and view plasma information.	IBM DB2
6.	File storage	File storage requirements	IBM Block Storage
7.	Infrastructure (Server/Cloud)	To deploy the application on Local System	Kubernetes

Table-2: Application Characteristics:

S. No	CHARACTERISTICS	DESCRIPTION	TECHNOLOGY
1.	Open-Source Frameworks	Python Flask frameworks is used	Python Flask
2.	Security Implementations	Mandatory Control (MAC) and Kubernetes is used	SHA-256, Encryptions, IAM Controls, OWASP etc.
3.	Scalable Architecture	3 – tier Architecture is used	Web Server-HTML, CSS Application Server- Python Flask Database Server- IBM DB2
4.	Availability	using of load balancers to distribute network traffic across servers.	IBM Load Balancer
5.	Performance	User friendly. Request and response faster	IBM Content Delivery Network.