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

Technical Architecture:

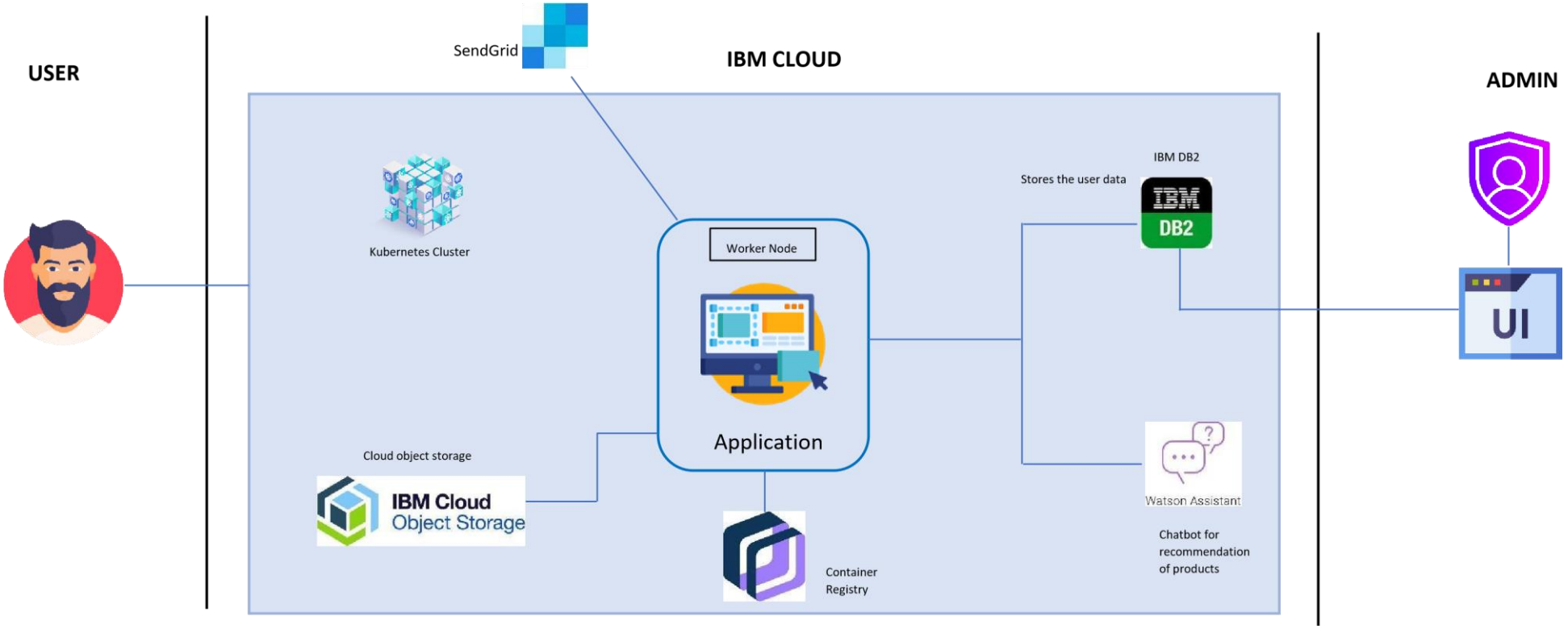

***Table-1: Components & Technologies*:**

S. No	Component	Description	Technology

1.	User Interface	The user interacts with web application e.g., Web UI	HTML, CSS, JavaScript, Flask.
2.	Application Logic-1	The application includes login where user can login with their credentials and also supports registration where new users can be added.	Python
3.	Application Logic-2	The application includes a chatbot which helps the user in recommendation of products.	IBM Watson Assistant
4.	Database	Details of customers and products are stored	MySQL
5.	Cloud Database	The cloud database ensures secured storage of data	IBM DB2, IBM Cloudant, etc.
6.	File Storage	File storage requirements	IBM Object Storage or Other Storage Service or Local Filesystem
7.	External API	To send emails from the application	SendGrid
8.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration:	Docker, Kubernetes, etc.

Table-2: Application Characteristics:

S. No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Flask is an open-source web framework. The web application is built using Flask	Flask
2.	Security Implementations	• Enable Role-based access control • Enables strict version control and permits rapid rollbacks if a vulnerability is uncovered in new code.	Container registry, Kubernetes
3.	Scalable Architecture	Handles large number users on demand	Container registry, Kubernetes
4.	Availability	The application can be accessed at any time	Docker
5.	Performance	Handles many numbers of user’s requests without ambiguity	Docker