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

Date	30-10-2023
Team ID	Team-592965
Project Name	Ship Classification Using Deep Learning
Maximum Marks	4 Marks

Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table1 and the table 2

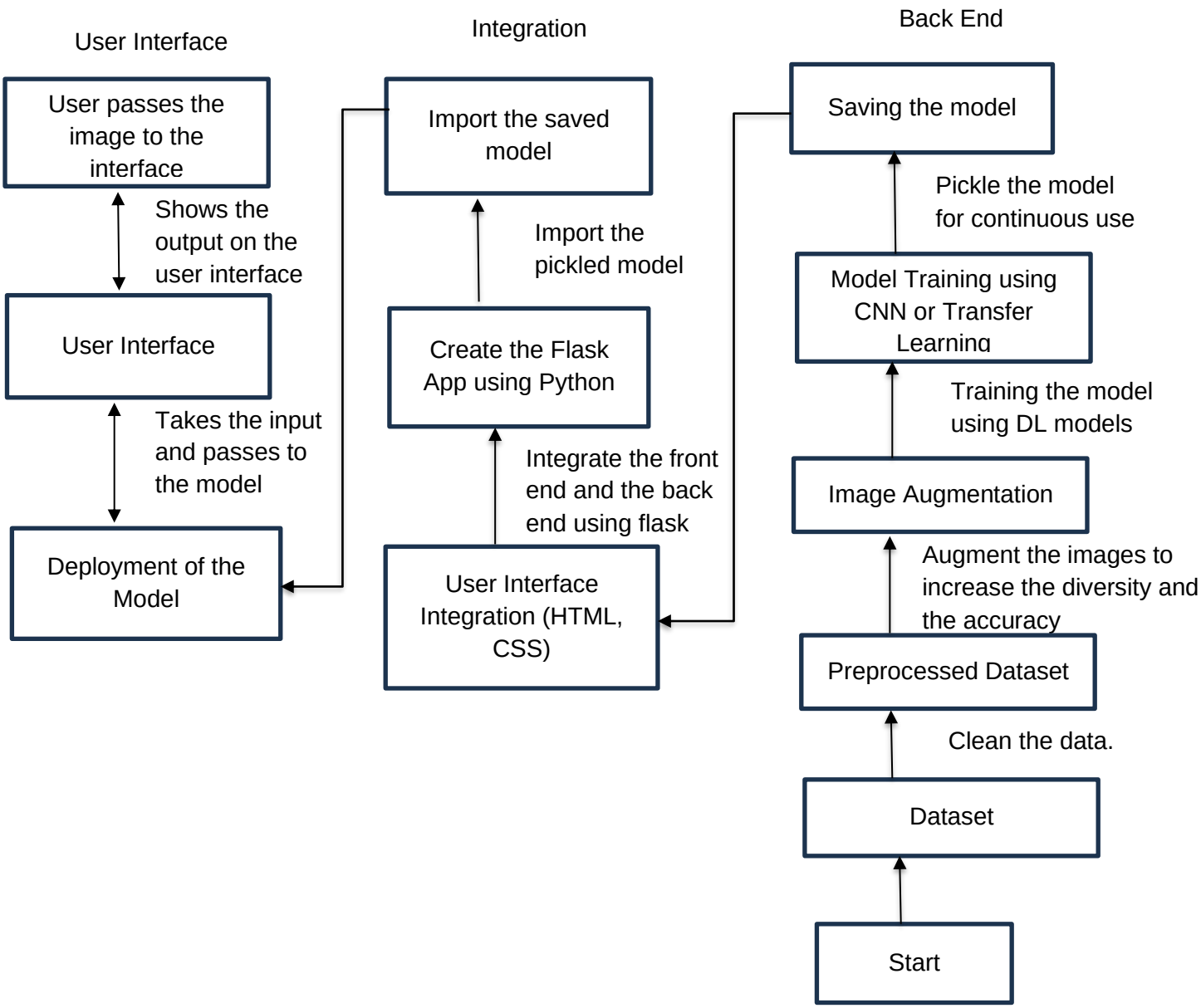

Table-1: Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	The interface for the user to interact with the application (Web UI)	HTML, CSS, JavaScript.
2.	Application Logic-1	The logic to build the model	Python
3.	Database	The dataset for the model building	Csv File and images
4.	File Storage/ Data	The locations to store the data used to build the model	Local System or the Google Drive
5.	Frame Work	The framework used to create the web application integrating the front end and the back end of the project.	Python Flask
6.	Deep Learning Model	For classifying the ships	CNN, Transfer Learning.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	List of the open-source frameworks used	Python's Flask
2.	Security Implementations	List of the security / access controls implemented.	Encryption.
3.	Scalable Architecture	The technologies implemented to make the project scalable	Tensorflow and Pytorch
4.	Availability	Justify the availability of application	Load balancers
5.	Performance	Design consideration for the performance of the application.	Transfer Learning, Hyperparameter Tuning.