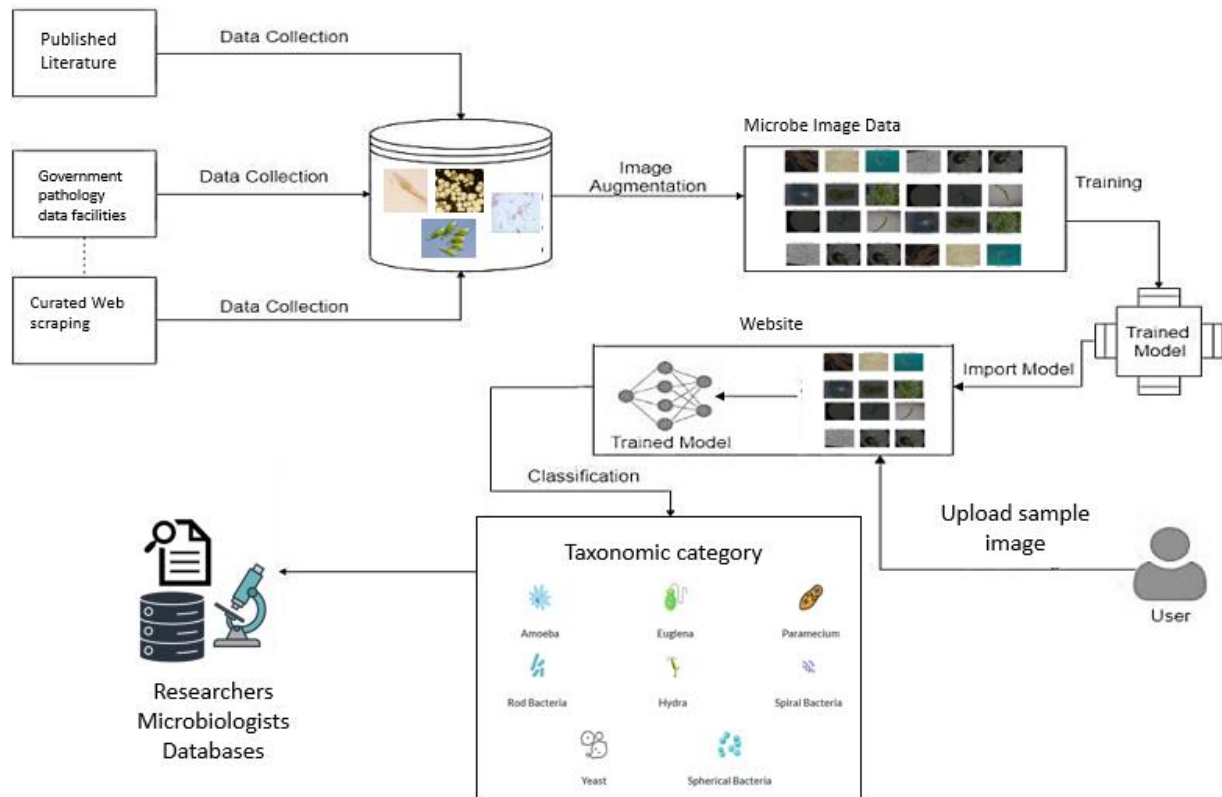


## Project Design Phase-II Data Flow Diagram & User Stories

Date	6-10-2023
Team ID	EXT2023TMID592333
Project Name	Microbe Mapper: Visual Recognition Of Micro-Organisms
Maximum Marks	4 Marks

### Data Flow Diagrams:

A Data Flow Diagram (DFD) is a traditional visual representation of the information flows within a system. A neat and clear DFD can depict the right amount of the system requirement graphically. It shows how data enters and leaves the system, what changes the information, and where data is stored.



User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Hospitals & microbiology laboratories	Project setup &	USN-1	Set up the tools and frameworks to start the AI based pathology	successfully configured with all necessary tools and frameworks	High	Sprint 1
	Infrastructure					
Governments laboratories	development environment	USN-2	Gather a diverse dataset of images containing different types of microbes for training the deep learning model.	Gathered a diverse dataset of images	High	Sprint 1
Bioinformatics Centers, Automation tools	Data collection	USN-3	Preprocess the collected dataset by resizing images, normalizing pixel values, and splitting it into training and validation sets.	preprocessed the dataset	High	Sprint 2
Researchers and Academia	data preprocessing	USN-4	Explore and evaluate different deep learning architectures to select the most suitable model for microbe classification	we could explore various DL models	High	Sprint 2
Bioinformatics and ML team	model development	USN-5	train the selected deep learning model using the preprocessed dataset and monitor its performance on the validation set.	we could do validation	High	Sprint 3
3rd party company and industry players	model deployment &	USN-7	deploy the trained deep learning model as an API or web service to	we could check the scalability	medium	Sprint 4
	Integration		make it accessible for microbe classification. integrate the model's API into a user-friendly web interface for users to upload images and receive microbe classification results.			
Government regulatory body	Testing & quality assurance	USN-8	conduct thorough testing of the model and web interface to	we could create web application	medium	Sprint 5
			identify and report any issues or bugs. fine-tune the model hyperparameters and optimize its performance based on user feedback and testing results.			