**Project Design Phase**

**Data Flow Diagram & User Stories**

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| Date | 23 October 2023 |
| Team ID | 592869 |
| Project Name | Lip Reading using Deep Learning |
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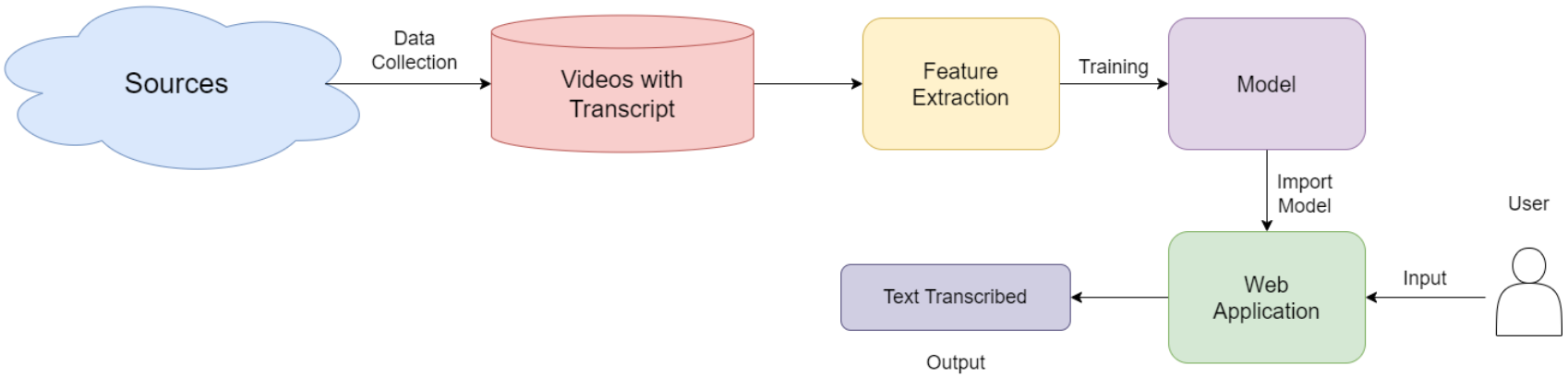
**Data Flow Diagrams:**

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 Stories:

| User Type | Functional Requirement (Epic) | User Story Number | User Story / Task | Acceptance Criteria | Priority |
|---|---|---|---|---|---|
| User with a hearing impairment | The system should allow users to upload video content for lip reading analysis | USN - 1 | As a user with a hearing impairment, I want to upload a video containing spoken words to the system for accurate transcriptions. | The system must provide an option to upload video files.<br>Uploaded videos should be processed for lip reading.<br>The system must return a text transcription of the spoken words in the video. | High |
| User of the lip reading system | The system should provide a user-friendly website for interaction. | USN - 2 | As a user of the lip reading system, I want to access and use the service through a user-friendly website, enabling easy and intuitive interactions. | The website should have a clear and intuitive user interface.<br>Users should be able to navigate and use the website without difficulty.<br>The website should provide clear instructions and controls for video input. | High |
| Parent or caregiver of a non-verbal child | The system should be accessible to children and provide accurate transcriptions. | USN – 3 | As a parent or caregiver of a non-verbal child, I want the system to be accessible to children and provide accurate transcriptions for their benefit. | The system should have a child-friendly user interface and controls.<br>Children should be able to use the system with minimal adult assistance.<br>The system should accurately transcribe spoken words to assist non-verbal children in understanding and communicating. | Medium |
| User who may encounter various accents and speaking styles | The system should adapt to different accents and speech patterns based on user feedback. | USN - 4 | As a user who may encounter various accents and speaking styles, I want the system to continuously improve its accuracy and adapt to different speech patterns based on user feedback. | The system should include a feedback mechanism for users to report inaccuracies or provide input.<br>User feedback should be used to train the deep learning models and improve the system's accuracy.<br>The system's transcriptions should become more accurate and adaptable over time. | Medium |