Team Contributions: POC SFWRENG 4G06A

Team #25, RapidCare
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This document summarizes the contributions of each team member up to the POC Demo. The time period of interest is the time between the beginning of the term and the POC demo.

1 Demo Plans

Our project is a system which intends to speed up the documentation process for health care systems through audio transcription and automated report generation.

The following list of risks were identified as a part of our development Plan:

- **Speech Input** – A hospital or a clinic can be a loud place, in the event audio input is taken we need to ensure that it is clean and clear. This would mean essentially blocking outside noise.

- **Pre-Trained Models** – To manipulate and use both inputs above we need to create a model to be accurate and provide accuracy when filling in charts.

- **Data Privacy** – This application will hold a lot of patient data so creating a store that is secure and making sure standard data security practice is applied is a must.

- **User Acceptance** – This will require further elicitation with our supervisor. This would help us to gather data on what critical needs of healthcare professionals such that critical features are present.

In the proof of concept demonstration we intend to demonstrate how we would address all the risks identified above. We would demonstrate the core functionality of the system which is to take speech input and convert that into

text and then classify it populate the a sample patient medical chart using pre trianed models. The frontend and backend will be connected securely through an API module to ensure secure transfer of data. To mitigate the user acceptance risk, we demonstrated our POC demo to our supervisor who is a healthcare professional, to gain insights about the critical user needs. We were able to identify that the charts should be filled in with an optimal amount of accuracy. The classified data should be displayed into the charts in real-time which we intend to demonstrate in our demo.

Below is the list of component that will be demonstrated in the POC demo:

- **Frontend**: This will allow the user to record their voice, then based on the voice input it will populate a sample medical chart.

- **Voice to Text Module**: This will convert the voice input to text.

- **Classification Module**: This will classify which part of the text goes in which section of the medical chart.

- **API Module**: This will act as a broker to securely transfer data between the frontend and backend of the system.

2 Team Meeting Attendance

Student	Meetings
Total	8
Gurleen Rahi	8
Inreet Kaur	8
Moamen Ahmed	8
Pranav Kalsi	8

3 Supervisor/Stakeholder Meeting Attendance

Student	Meetings
Total	2
Gurleen Rahi	2
Inreet Kaur	1
Moamen Ahmed	1
Pranav Kalsi	1

We have recently found a new supervisor. Gurleen Rahi had a first in-person meeting to pitch our idea to the supervisor. We have now setup a biweekly check-in meeting in order to discuss our progress. We have also setup an in-person meeting at the clinic to get to know more about the environment we are dealing with and learn more about the current systems.

4 Lecture Attendance

Student	Lectures
Total	12
Gurleen Rahi	9
Inreet Kaur	9
Moamen Ahmed	8
Pranav Kalsi	10

5 TA Document Discussion Attendance

Student	Lectures
Total	3
Gurleen Rahi	3
Inreet Kaur	3
Moamen Ahmed	3
Pranav Kalsi	3

6 Commits

Student	Commits	Percent
Total	181	100%
Gurleen Rahi	48	26.5%
Inreet Kaur	44	24.3%
Moamen Ahmed	17	9.4%
Pranav Kalsi	72	39.8%

7   Issue Tracker

Student	Authored (O+C)	Assigned (C only)
Gurleen Rahi	28	35
Inreet Kaur	22	34
Moamen Ahmed	0	31
Pranav Kalsi	25	40

Gurleen Rahi: Responsible for making issues for all the TA , supervisor, and team meetings.
Pranav Kalsi: Responsible for making issues for the deliverables.
Inreet Kaur: Responsible for making issues for lectures and deliverables.
Gurleen Rahi, Pranav Kalsi, Inreet Kaur responsible for making issues for peer-reviews.
Moamen will be responsible for making issues for features and test suite.

8   CICD

CI/CD will be critical for project development. We will be using **Jenkins** which is an open-source CI/CD development tool that will act as an automated DevOps tool.

Jenkins will allow us to achieve Continuous Integration and Continuous Delivery through the following:

- **Continuous Integration** – On the continuous integration time Jenkins offers automated build and testing. This will save a lot of overhead on testing and test feedback as Jenkins will be responsible for it not only will it build and test the code it will also offer instant feedback to the developer.

- **Continuous Deployment** – Jenkins offers automated deployment functionalities meaning that once the build passes all tests it can be deployed into a production or pre-production environment. This will ensure the deployment is consistent, reliable, and efficient. This also will make sure that all features pass a minimum functionality standard ensuring that they are ready for production. Jenkins offers integrations with git as well so deployments will be version-controlled meaning they may be reverted as needed.

By implementing a CI/CD tool (Jenkins) we can ensure that code isn't riddled with errors and automate a lot of tasks which will increase productivity. Having Jenkins also will reduce the risk of human error in the project and will automate many areas of DevOps.