MAIN PROJECT ROUGH RECORD

Topic: **AMAZON TRANSCRIBE MEDICAL**

Submitted By,

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**ABSTRACT**

The Amazon Transcribe Medical is an automatic speech recognition (ASR) service driven by state-of-the-art machine learning, the service accurately transcribes medical terminologies such as medicine names, procedures, and even conditions or diseases. Amazon Transcribe Medical can serve a diverse range of use cases, from transcribing physician-patient conversations that enhance clinical documentation, to capturing phone calls in pharma covigilance, or even subtitling telemedicine consultations. Amazon Transcribe Medical is HIPAA eligble and prioritizes patient data privacy and security. Amazon Transcribe Medical is a scalable transcription service that lives in the cloud. Pay only for what you transcribe, with no fixed costs, upfront commitments, or long-term licenses. Flexibly scale up or down the usage based on your needs.

**EXISTING SYTEM**

In the existing system consist of manual work process that is a medical transcriptionist is the person who responsible for listening to voice recording that physician and other health care professionals make and convert them into written reports. So the accuracy of such evaluation report depends on the knowledge of the medical transcriptionist. And also the person in the field must be hard worker and it is a time consuming process that perform manually all these works.And also there is a chance of error or missing of data .it is less user friendly.

**PROPOSED SYSTEM**

In order to overcome the limitations of existing system it introduce the proposed system .In the proposed system is a computer software that decode the human voice into text. So in the proposed system it use a automatic speech recognition service which recognize the uploaded or recorded audio and automatically transmitted it into text without any use of person help .so it reduce the manual work and it also provide good GUI so that it provide a user friendly atmosphere also retrieve and managing of data can be done easily.

**MODULE DESCRIPTION**

1. Audio file transcribe:

The audio file transcribe consist of audio file language,speech type,patient or case number,email address.

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1. Record transcribe:

This consist of Record the voice using start button, audio file transcribe consist of audio file language, speech type, patient or case number, email address.

1. Admin panel:

Admin panel consist of login and registration of staff,patient,and doctor,create and edit patient case no, audio file upload, successful results, daily transcribe tasks,case name with audio file name, google analytics, Adsense, smtp setting for email service, google setting for google adsense and analytics, profile setting.

**PRODUCT BACKLOG**

|  |  |  |
| --- | --- | --- |
| SL NO | DESCERIPTION | PRIORITY |
| 1 | As an administrator I want to transcribe the audio. | 1 |
| 2 | As an admin I want to upload or record the audio. | 2 |
| 3 | Admin login | 3 |
| 4 | As an admin I want to register staff | 4 |
| 5 | As an admin I want to register doctor, patient | 5 |
| 6 | Profile setting | 6 |

**SPRINT BACKLOG**

**SPRINT1(31-3-21 9-4-21)**

|  |  |  |  |
| --- | --- | --- | --- |
| SLNO | TO DO | TIME ESTIMATED | STATUS |
| 1 | Requirement analysis | 14hrs | completed |
| 2 | Data set collection | 10hrs | Partially completed |

**SPRINT2(10-4-21 24-4-21)**

|  |  |  |  |
| --- | --- | --- | --- |
| SLNO | TO DO | TIME ESTIMATED | STATUS |
| 1 | Data set collection | 8hrs | completed |
| 2 | Design the table | 16hrs | completed |
| 3 | Design the data flow diagram | 8hrs | completed |
| 4 | Design UI | 15hrs | completed |

**SPRINT3 (1-5-21 22-5-21)**

|  |  |  |  |
| --- | --- | --- | --- |
| **SLNO** | **TO DO** | **TIME** | **STATUS** |
| **1** | **Code the registration of staff** | **6hrs** | **Completed** |
| 2 | Code the registration of doctor | 5hrs | Completed |
| 3 | Code the registration of patient | 4hrs | Completed |
| 4 | Code the profile setting | 6hrs | completed |

**SPRINT 4 (24-5-21 14-6-21)**

|  |  |  |  |
| --- | --- | --- | --- |
| **SLNO** | **TO DO** | **TIME** | **STATUS** |
| **1** | **Speech recoginition** | **9hrs** | **Completed** |
| 2 | Data preprocessing | 13hrs | Completed |
| 3 | Data segmentation | 13hrs | Completed |
| 4 | Model training | 12hrs | completed |
| 5 | Testing | 12hrs | completed |

**DAILY SPRINT**

|  |  |  |  |
| --- | --- | --- | --- |
| ID | REQUIRMENTS | TO DO | STATUS |
| DATE -31-3-21 | | | |
| 1 | Project topic selection | Selection | In progress |
| DATE 5-3-21 | | | |
| 1 | Topic selected | selected | completed |
| DATE 6-4-21 | | | |
| 1 | Requirements gathering | Gathering requirements | completed |
| DATE 9-4-21 | | | |
| 1 | Starting Learning | Learning | progress |
| DATE 10-4-21 14-4-21 | | | |
| 1 | Data set collection | gathering | completed |
| DATE -15-4-21-18-4-21 | | | |
| 1 | Table design | design | completed |
| DATE 19-4-21 | | | |
| 1 | Form design | design | In progress |
| DATE 30-4-21 | | | |
| 1 | Form design | design | completed |
| DATE 1-5- 21 | | | |
| 1 | Coding | Staff registration | completed |
| DATE 2-5-21 | | | |
| 1 | Coding | Doctor, patient registration | completed |
| DATE 3-5-21 | | | |
| 1 | coding | Login page | completed |
| DATE 4-5-21 | | | |
| 1 | coding | Home page | completed |
| DATE 5-5-21 | | | |
| 1 | coding | Audio file | completed |
| DATE 20-5-21 | | | |
| 1 | coding | Record | completed |
| DATE 22-5-21 | | | |
| 1 | coding | Transcribe | completed |
| DATE 23-5-21 | | | |
| 1 | coding | Profile setting | completed |
| DATE 24-5-21 27-5-21 | | | |
| 1 | Coding | Speech recognition | completed |
| DATE 28-5-21 31-5-31 | | | |
| 1 | Coding | Data preprocessing | completed |
| DATE 1-6-21-5-6-21 | | | |
| 1 | Coding | Data segmentation | completed |
| DATE 6-6-21 8-6-21 | | | |
| 1 | Coding | Model training | completed |
| DATE 9-6-21 13-6-21 | | | |
| 1 | Coding | Testing | completed |

**TABLE DESIGN**

**1.data\_table**

|  |  |  |  |
| --- | --- | --- | --- |
| **Column Name** | **Data Type** | **Size** | **Constraint** |
| Id | int | 10 | Primary key |
| Patient\_name | Varchar | 255 | Not null |
| Case\_number | Varchar | 255 | Not null |
| Date | Date |  | Not null |
| Doctor name | Varchar | 255 | Not null |
| Audio file language | Text |  | Not null |
| Rec\_duration | Varchar | 100 | Not null |
| Speech\_type | Varchar | 20 | Not null |
| Active\_status | Tinyint | 4 | Not null |
| Created\_at | Timestamp |  | Not null |
| Updated\_at | Timestamp |  | Not null |
| Created\_by | Int | 10 |  |
| Updated\_by | Int | 10 |  |
| Medtrans\_id | Int | 10 |  |

**2.Doctor**

|  |  |  |  |
| --- | --- | --- | --- |
| **Column name** | **Data type** | **Size** | **Constraints** |
| Id | Int | 11 | Primary key |
| Username | Varchar | 50 | Not null |
| Password | Varchar | 50 | Not null |
| Email | Varchar | 50 | Not null |
| Join\_date | Timestamp |  | Not null |
| Address | Varchar | 250 | Not null |
| Hospital/management name | Varchar | 250 | Not null |
| Doctor verf id | Varchar | 15 | Not null |

**3.Patient**

|  |  |  |  |
| --- | --- | --- | --- |
| **Column Name** | **Data type** | **Size** | **Constraits** |
| Patient\_id | Int | 11 | Primary key |
| Patient\_name | Varchar | 250 | Not null |
| Password | Varchar | 20 | Not null |
| Gender | Varchar | 20 | Not null |
| Mobile\_number | Varchar | 30 | Not null |
| Day | Int | 20 | Not null |
| Month | Varchar | 20 | Not null |
| Year | Int | 20 | Not null |
| Street\_address | Varchar | 250 | Not null |
| City | Varchar | 200 | Not null |
| Zipcode | Int | 30 | Not null |
| Country | Varchar | 250 | Not null |
| Email | Varchar | 250 | Not null |
| Test1 | Varchar | 20 | Not null |
| Test2 | Varchar | 20 | Not null |
| Test3 | Varchar | 20 | Not null |
| Test4 | Varchar | 20 | Not null |
| Test5 | Varchar | 20 | Not null |

**4.roles**

|  |  |  |  |
| --- | --- | --- | --- |
| **Column name** | **Data type** | **Size** | **constraints** |
| Id | Int | 10 | Primary key |
| Name | Varchar | 100 | Not null |
| Type | Varchar | 200 | Not null |
| Active\_status | Tinyint | 4 | Not null |
| Created\_by | Varchar | 200 | Not null |
| Updated\_by | Varchar | 200 | Not null |
| Created\_at | Timestamp |  | Not null |
| Updated\_at | Time\_stamp |  | Not null |
| Medtrans\_id | Int | 10 |  |

**5.upload**

|  |  |  |  |
| --- | --- | --- | --- |
| **Column name** | **Data type** | **Size** | **Constraints** |
| Id | Int | 11 | Primary key |
| File name | Text |  | Not null |
| File\_id | Text |  | Not null |
| Service\_type | Varchar | 20 | Not null |
| Description | Medium text |  | Not null |
| File\_size | Double |  | Not null |
| Created\_at | Datetime |  | Not null |
| Clint\_id | Int | 11 | Not null |
| User\_id | Int | 11 | Not null |
| Uploaded\_by | Int | 11 | Not null |
| Deleted | Tiny int | 11 | Not null |

**6.user**

|  |  |  |  |
| --- | --- | --- | --- |
| **Column name** | **Data type** | **Size** | **Constraints** |
| Id | Int | 10 | Pk |
| Full\_name | Varchar | 250 | Not null |
| User name | Varchar | 250 | Not null |
| Email | Varchar | 250 | Not null |
| Password | Varchar | 250 | Not null |
| Usertype | Varchar | 100 | Not null |
| Access\_status | Tinyint | 4 | Not null |
| Active\_status | Tinyint | 4 | Not null |
| Random\_code | Text |  | Not null |
| Notification\_token | Text |  | Not null |
| Remember\_token | Varchar | 100 | Not null |
| Created\_at | Timestamp |  | Not null |
| Updated\_at | Timestamp |  | Not null |
| Created\_by | Int | 11 | Not null |
| Updated\_by | Int | 11 | Not null |
| Medtrans\_id | Int | 11 | fk |
| Role\_id | Int | 11 | fk |

**7.medtrans**

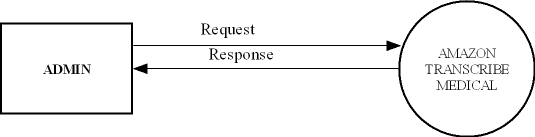
|  |  |  |  |
| --- | --- | --- | --- |
| **COLUMN NAME** | **DATA TYPE** | **SIZE** | **CONSTRAINTS** |
| Mestrans\_id | Int | 10 | Primary key |
| Org\_name | Varchar | 200 | Not null |
| Created\_by | Tinyint | 4 | Not null |
| Updated\_by | Tinyint | 4 | Not null |
| Created\_at | Timestamp |  | Not null |
| Updated\_at | Timestamp |  | Not null |

**8.login**

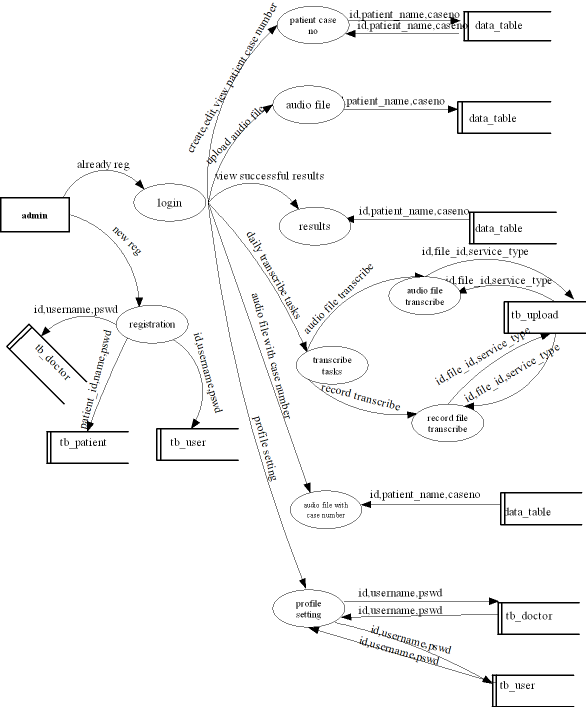
|  |  |  |  |
| --- | --- | --- | --- |
| **COLUMN NAME** | **DATA TYPE** | **SIZE** | **CONSTRAINTS** |
| User\_id | Int | 10 | Primary key |
| username | Varchar | 200 | Not null |
| password | varchar | 200 | Not null |
| User type | varchar | 200 | Not null |

**DATA FLOW DIAGRAM**

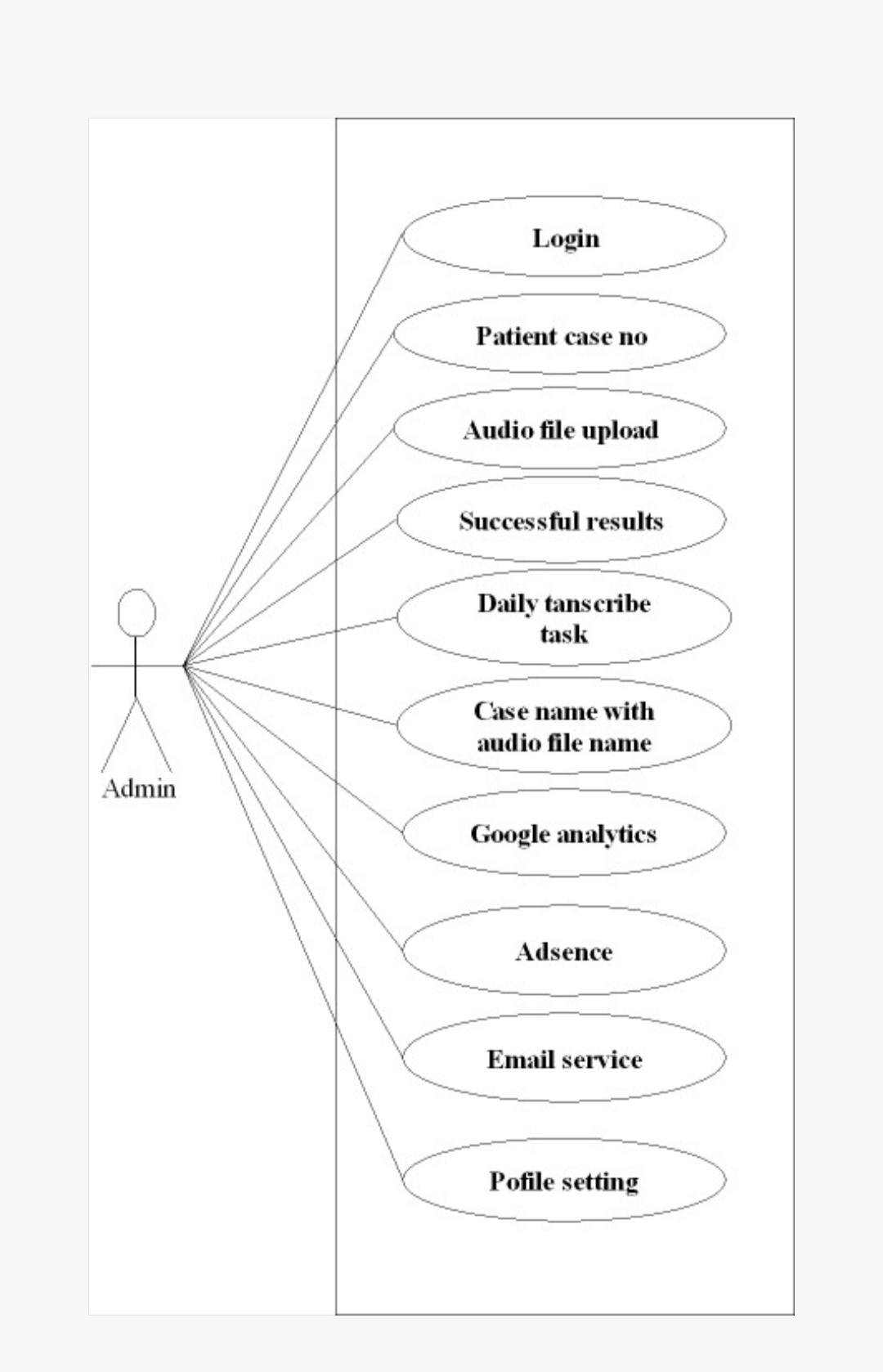
**LEVEL 0**

****

**LEVEL 1**

****

**USE CASE DIAGRAM**

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**SOFTWARE AND HARDWARE SPECIFICATION**

HARDWARE SPECIFICATION

· 32 bit or 64 bit

· 2 GB RAM

· Intel i3

SOFTWARE SPECIFICATION

· OS: windows 7 or above

· Framework: Django

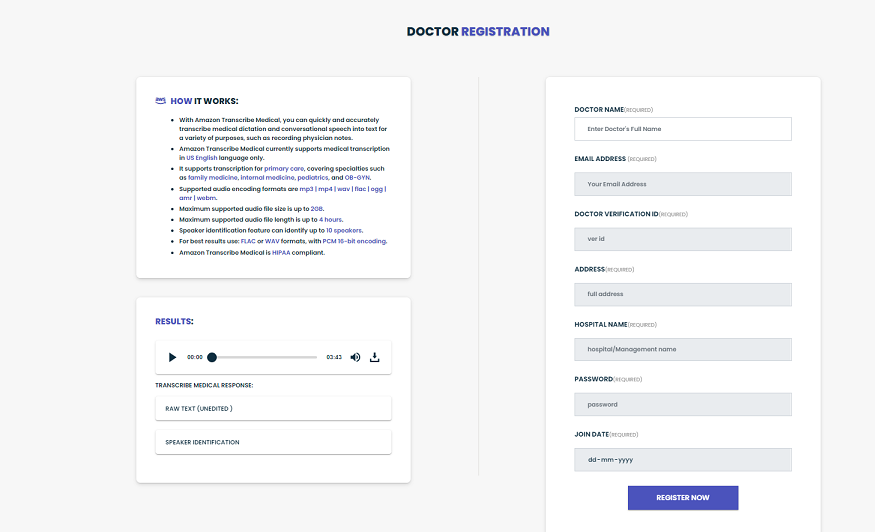
· Browser: Any browser

· Front\_end: Python

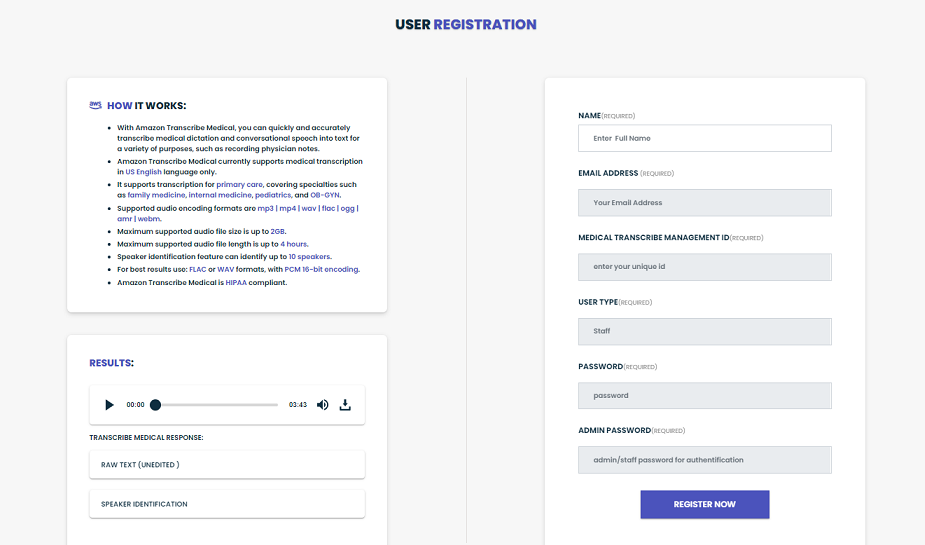
· Backend:MySql

FORM DESIGN

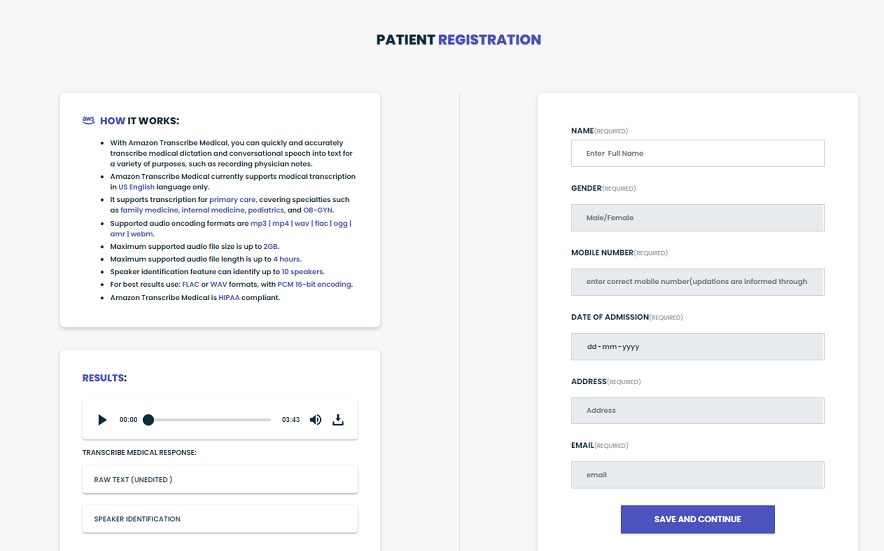
Doctor Registration

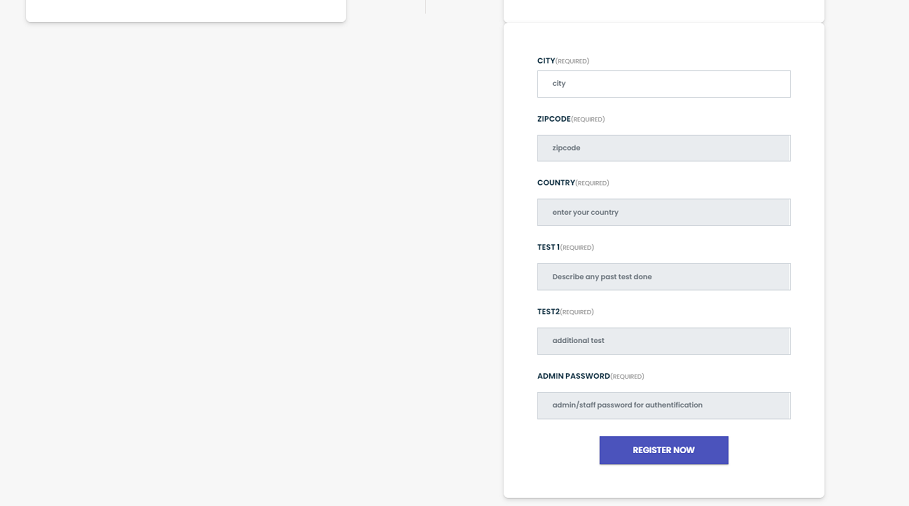


User Registation

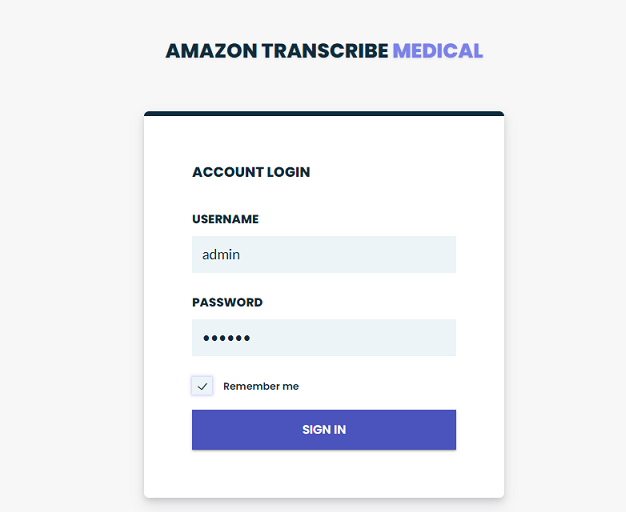


Patient Registration

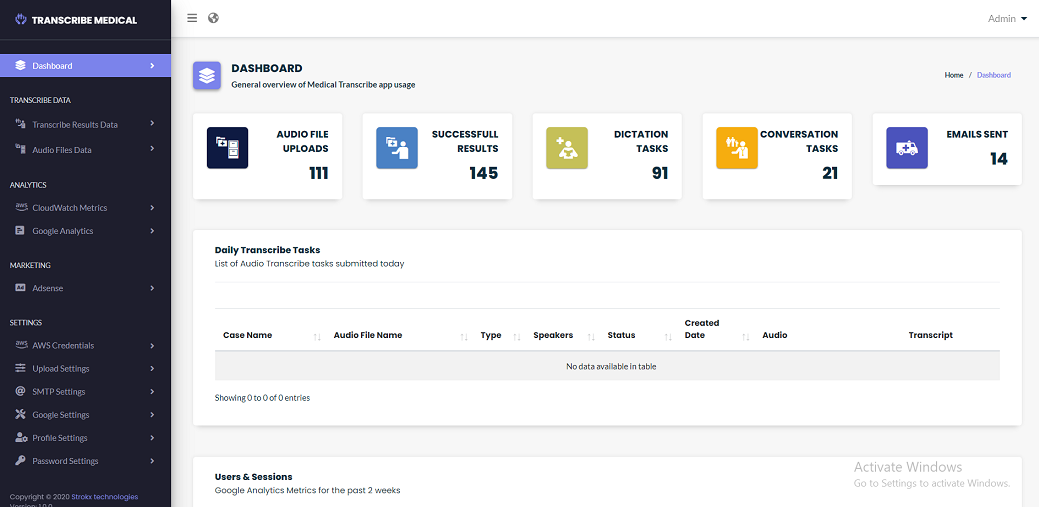




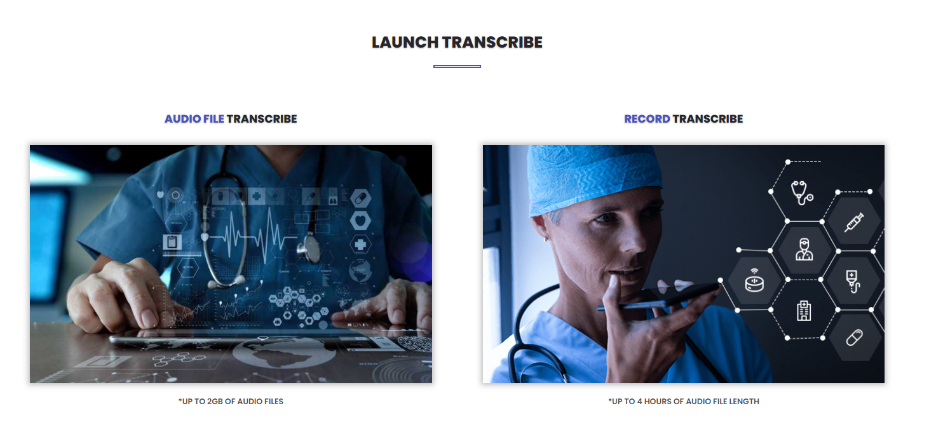
Login



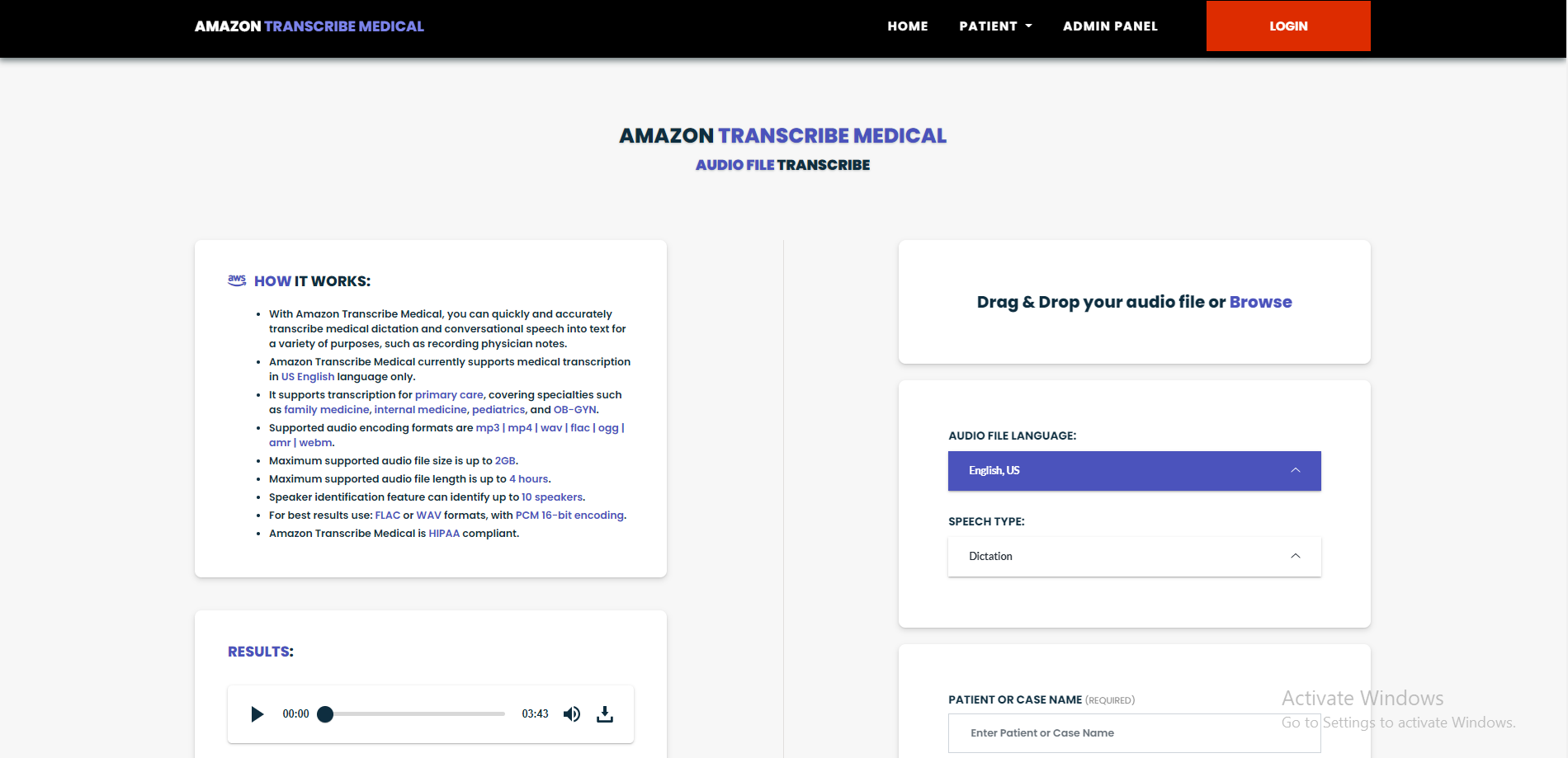
Dash Board

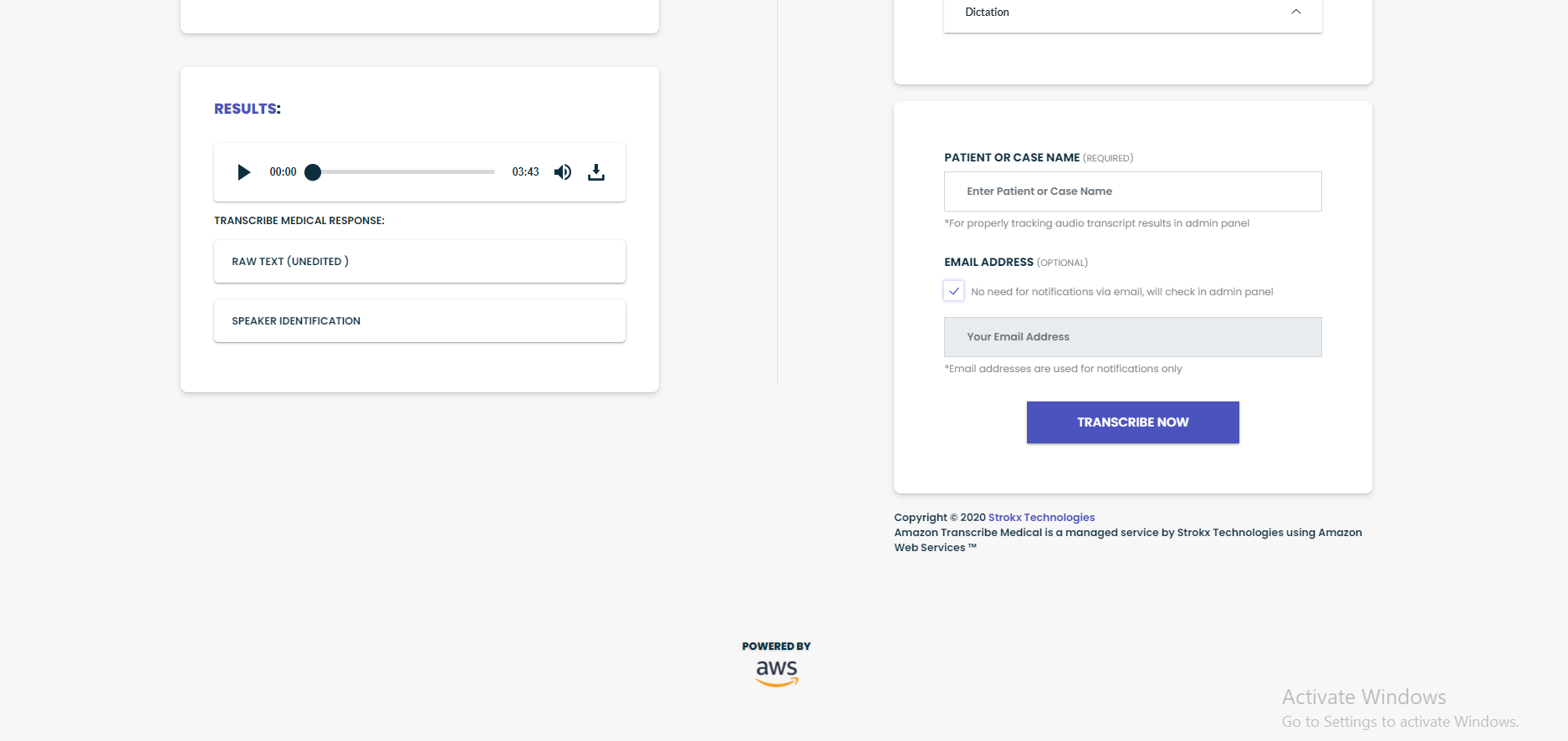


Audio File Upload Home Page

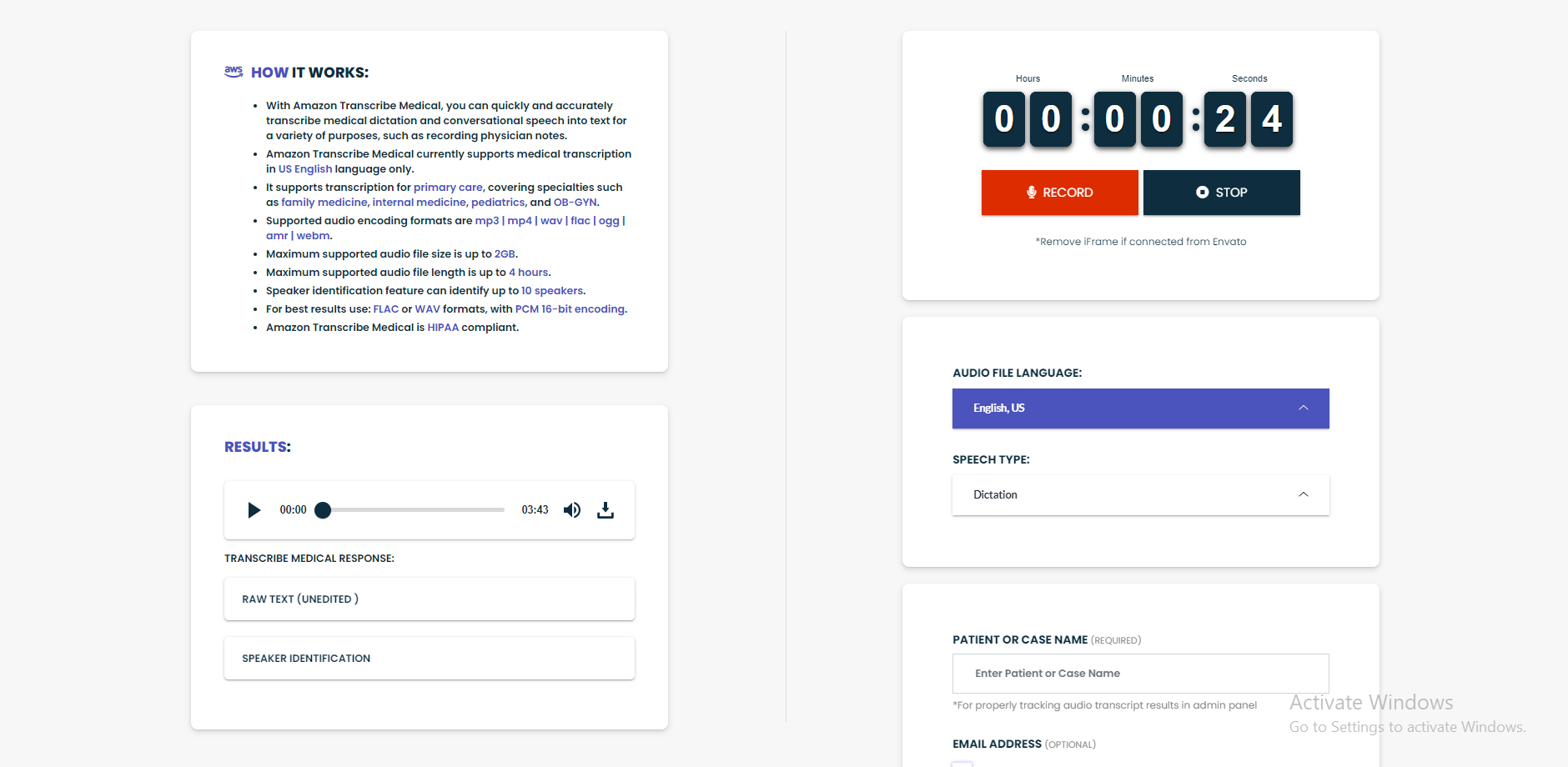


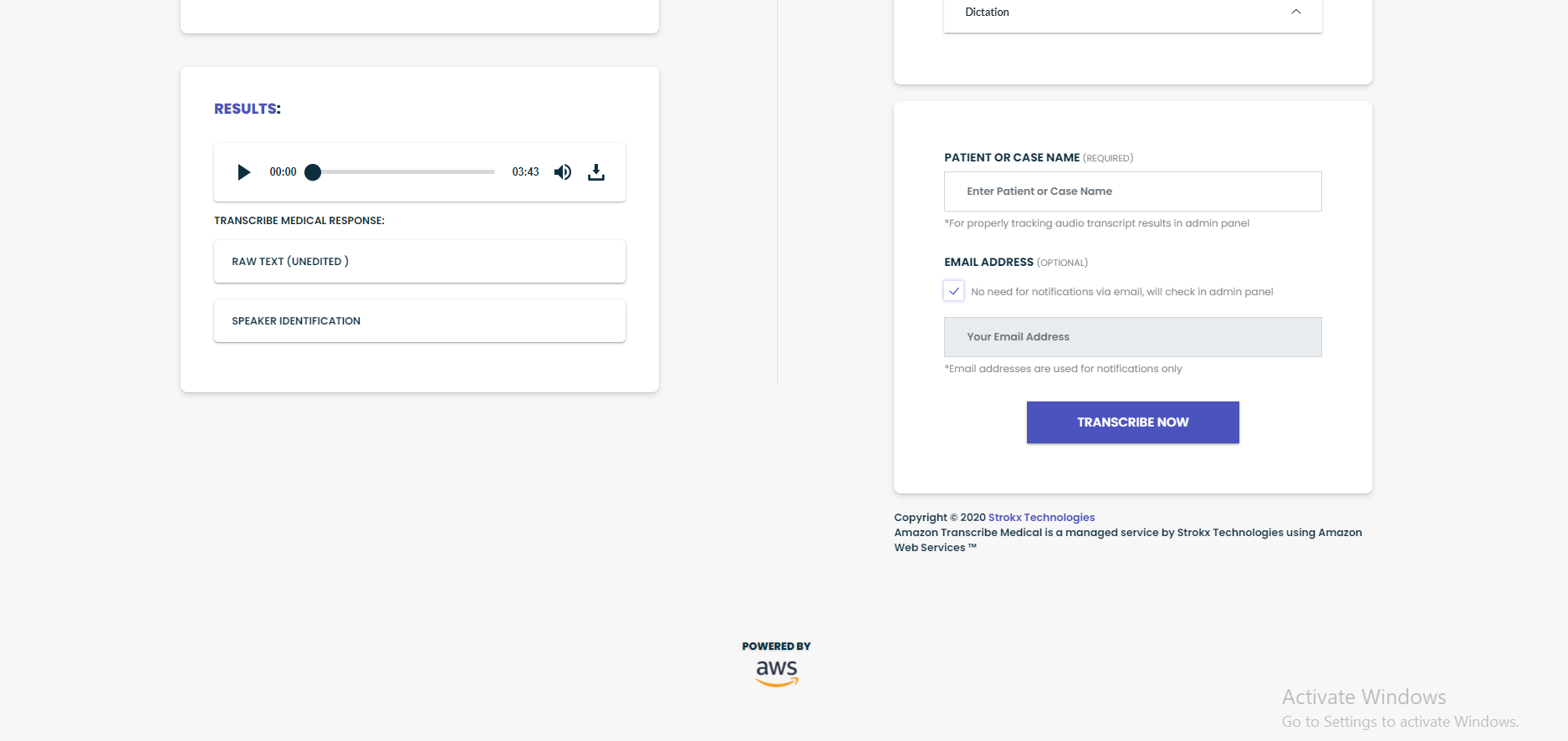
Audio File Transcribe



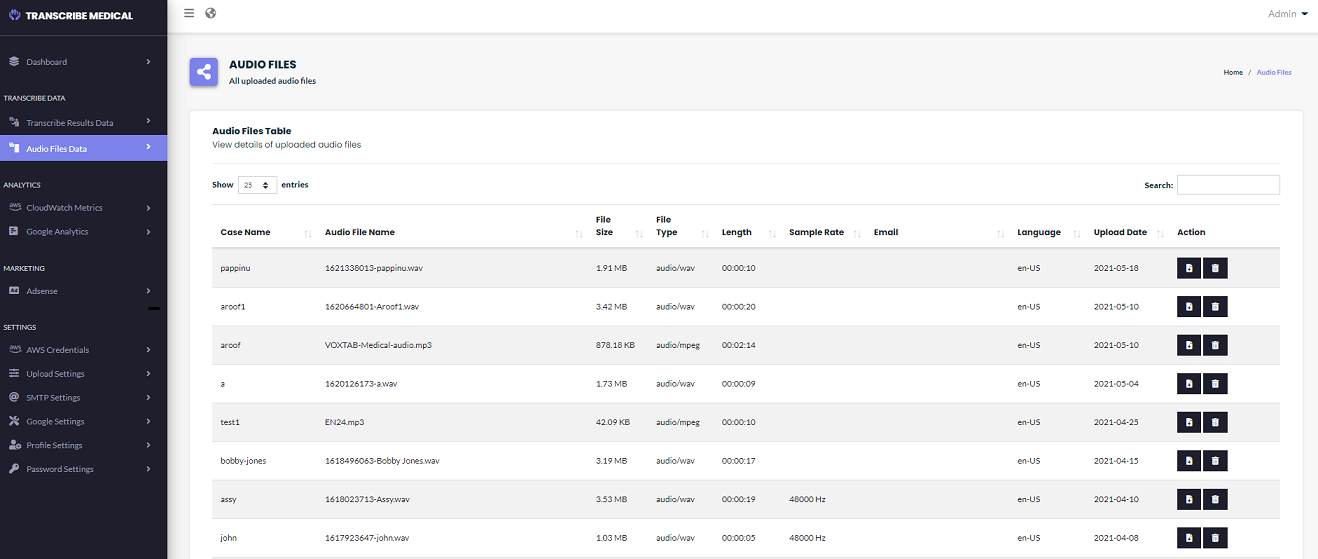


Record Transcribe File

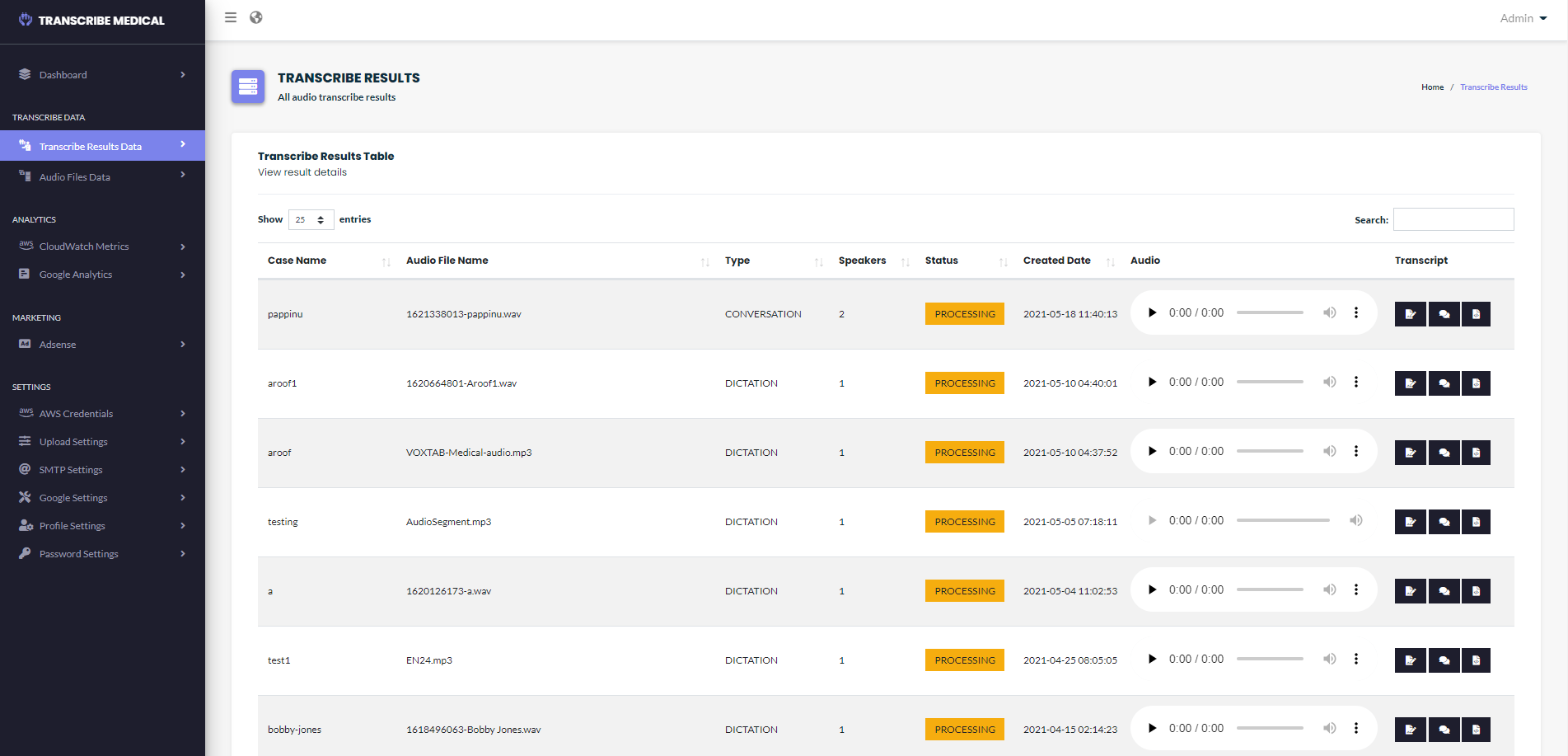




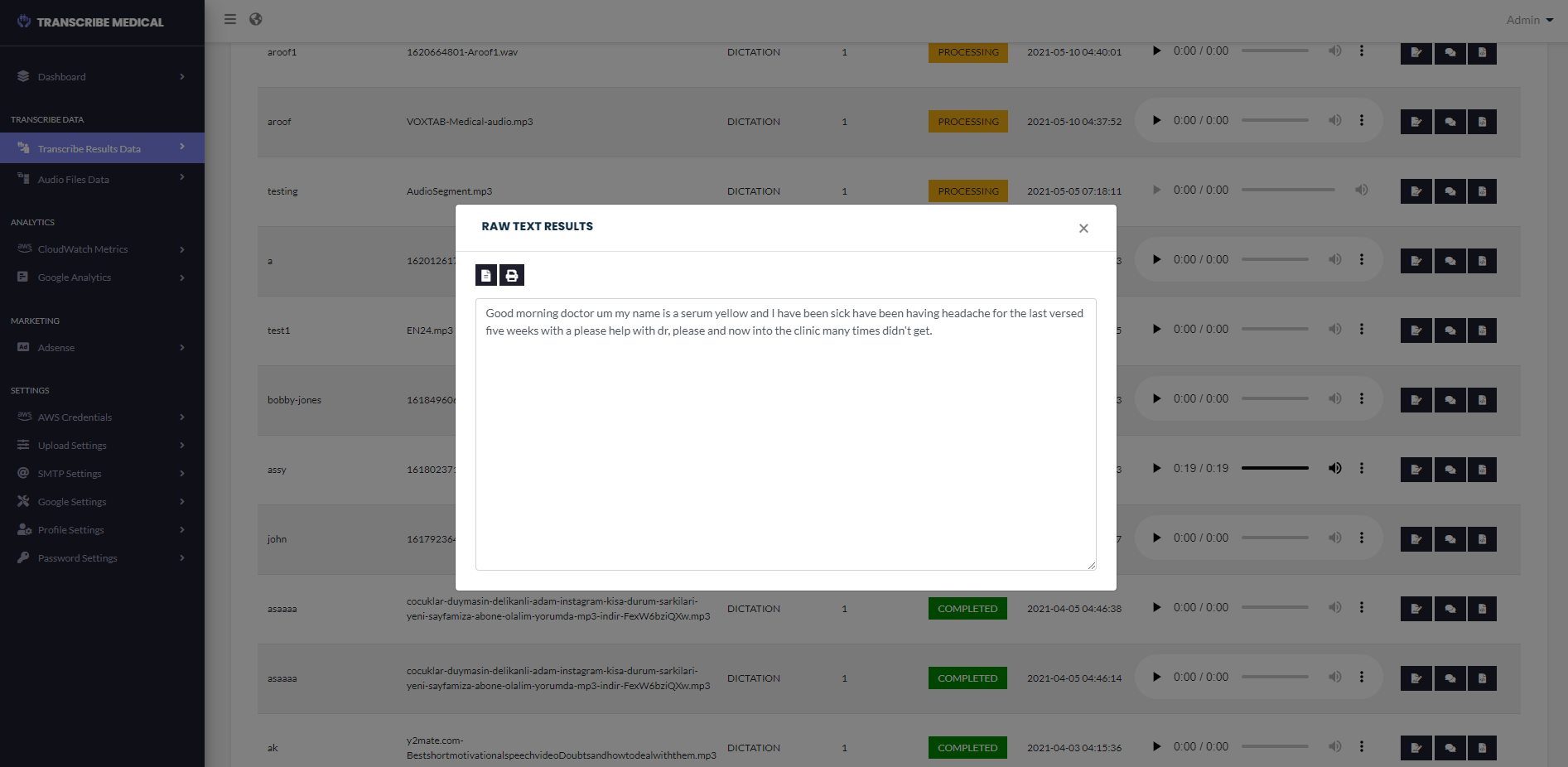
Audio File Upload



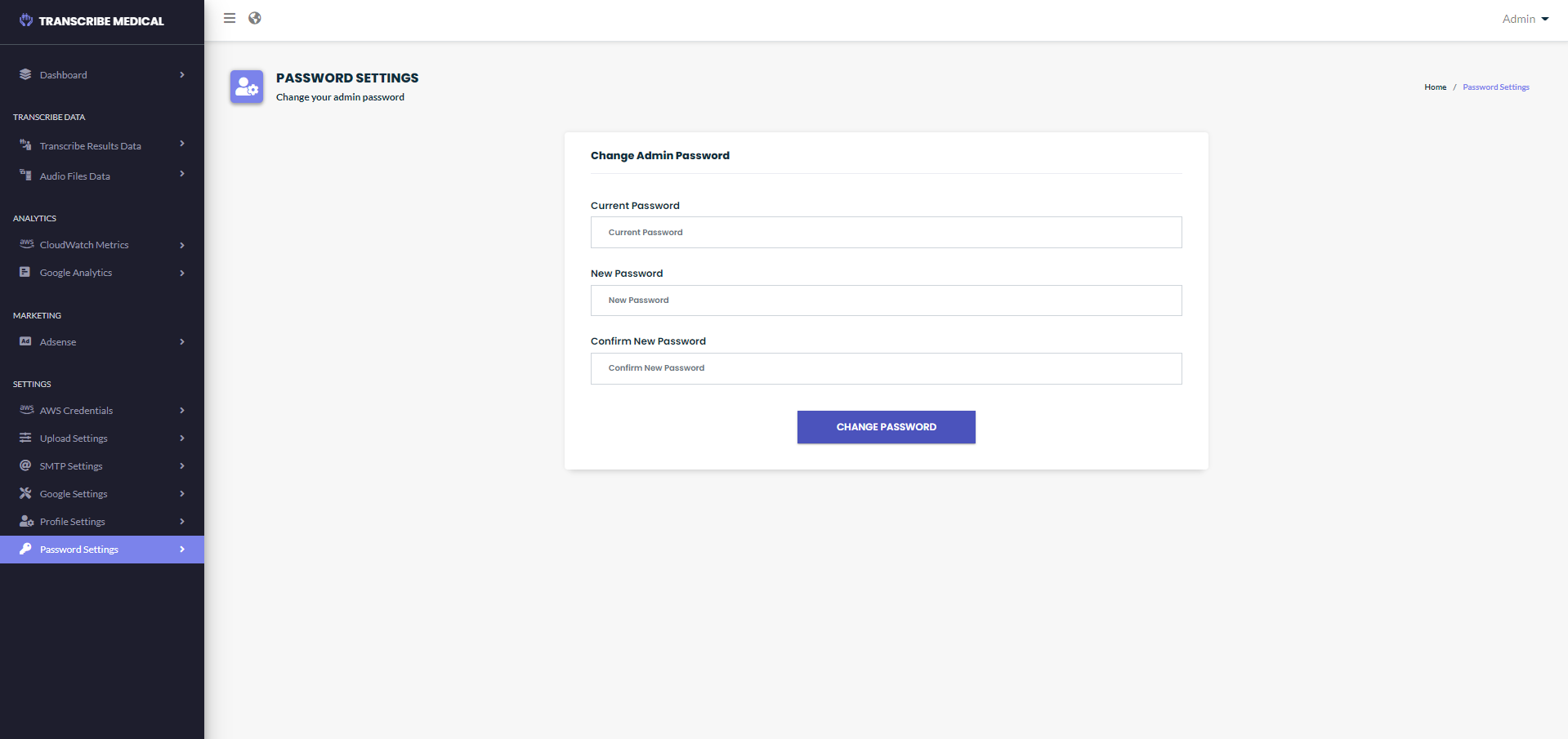
Transcribe Results



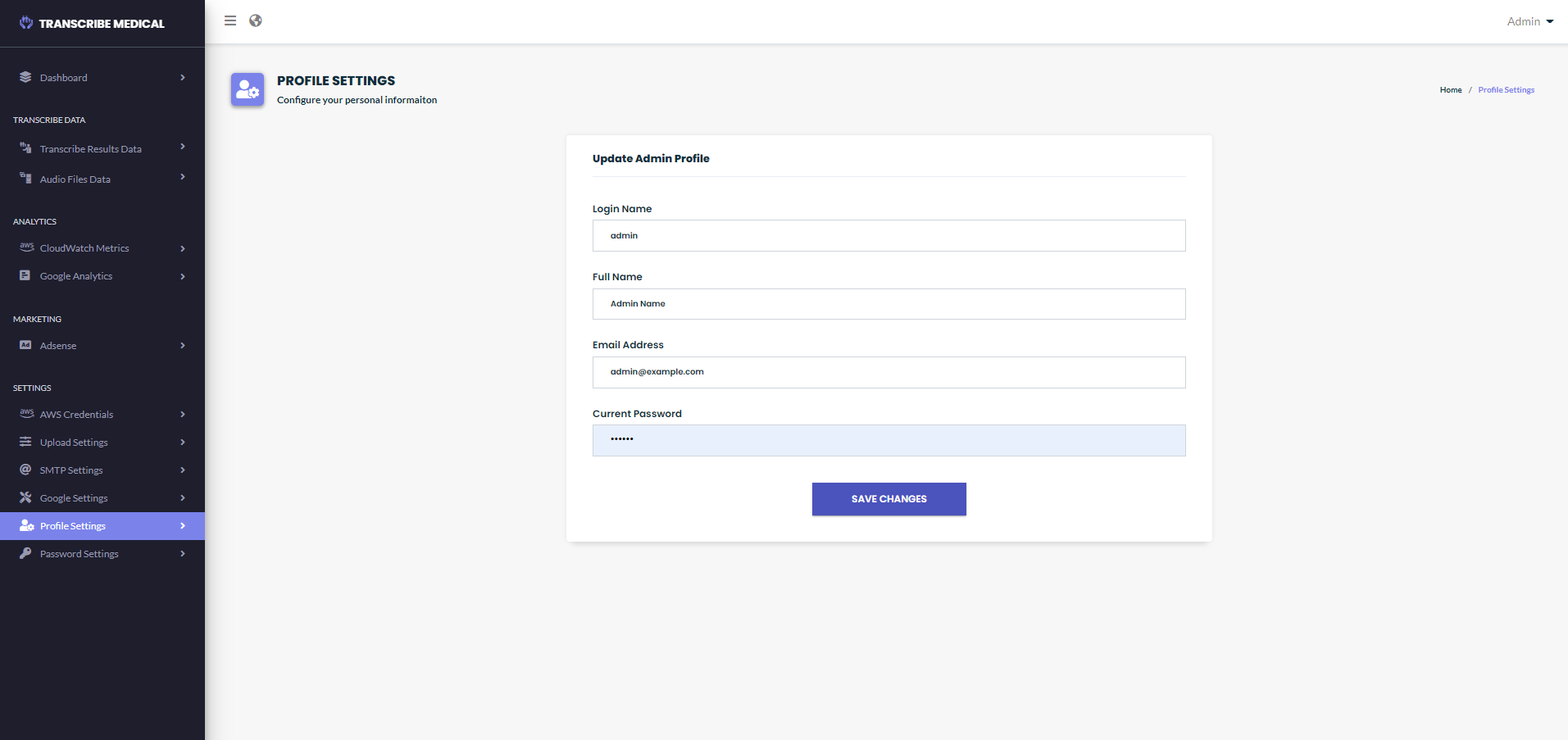
Raw Text Results



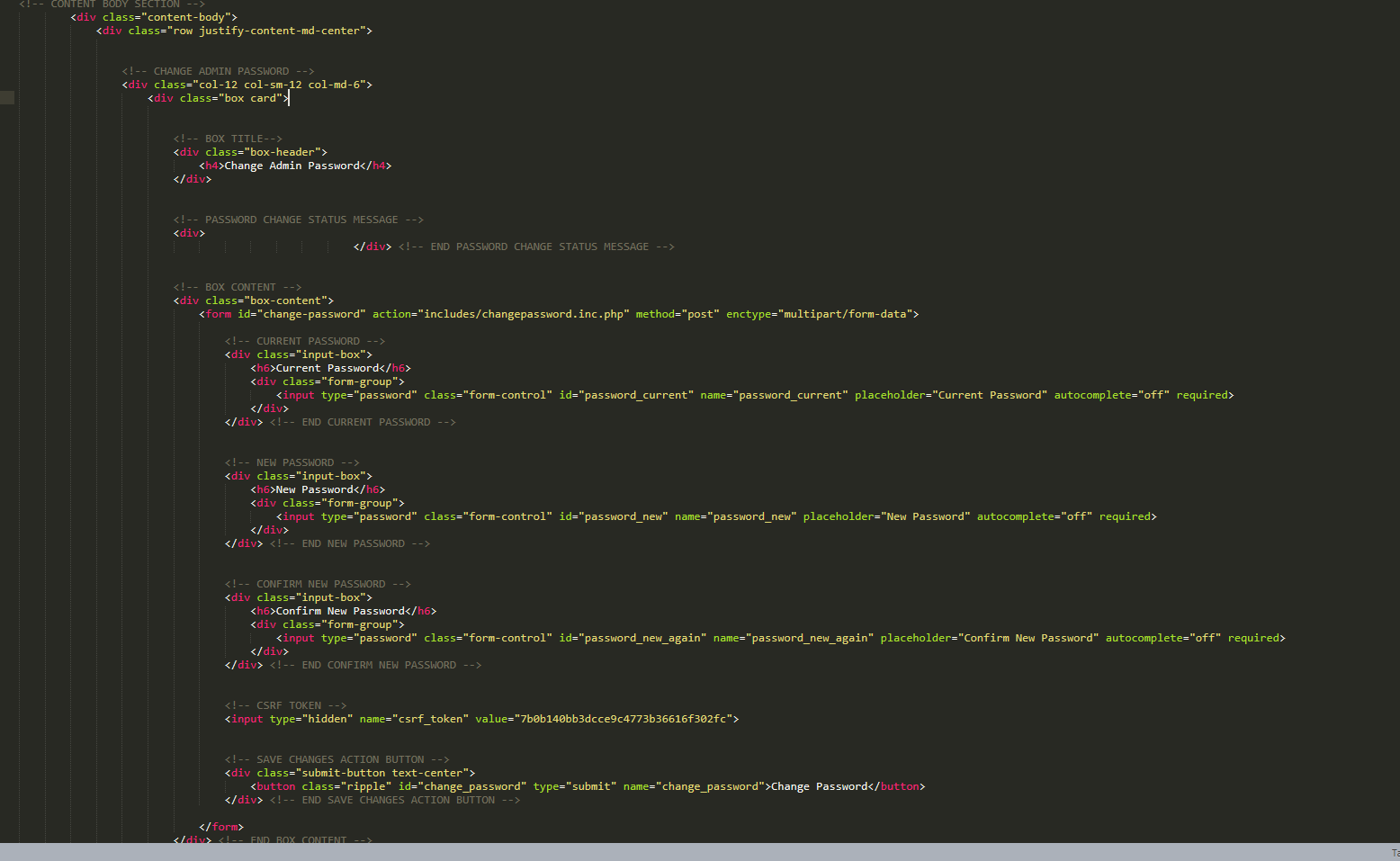
Password setting

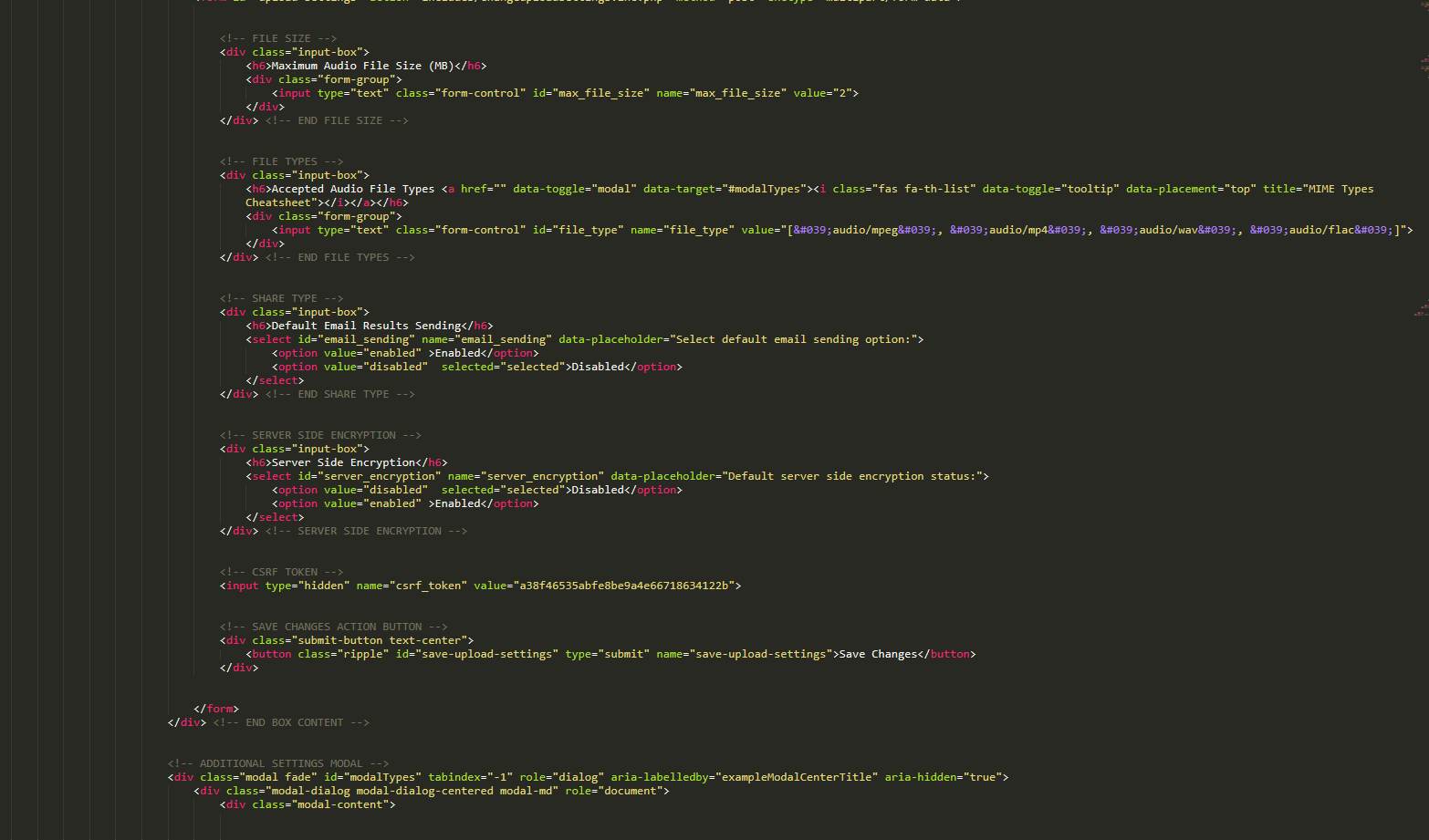


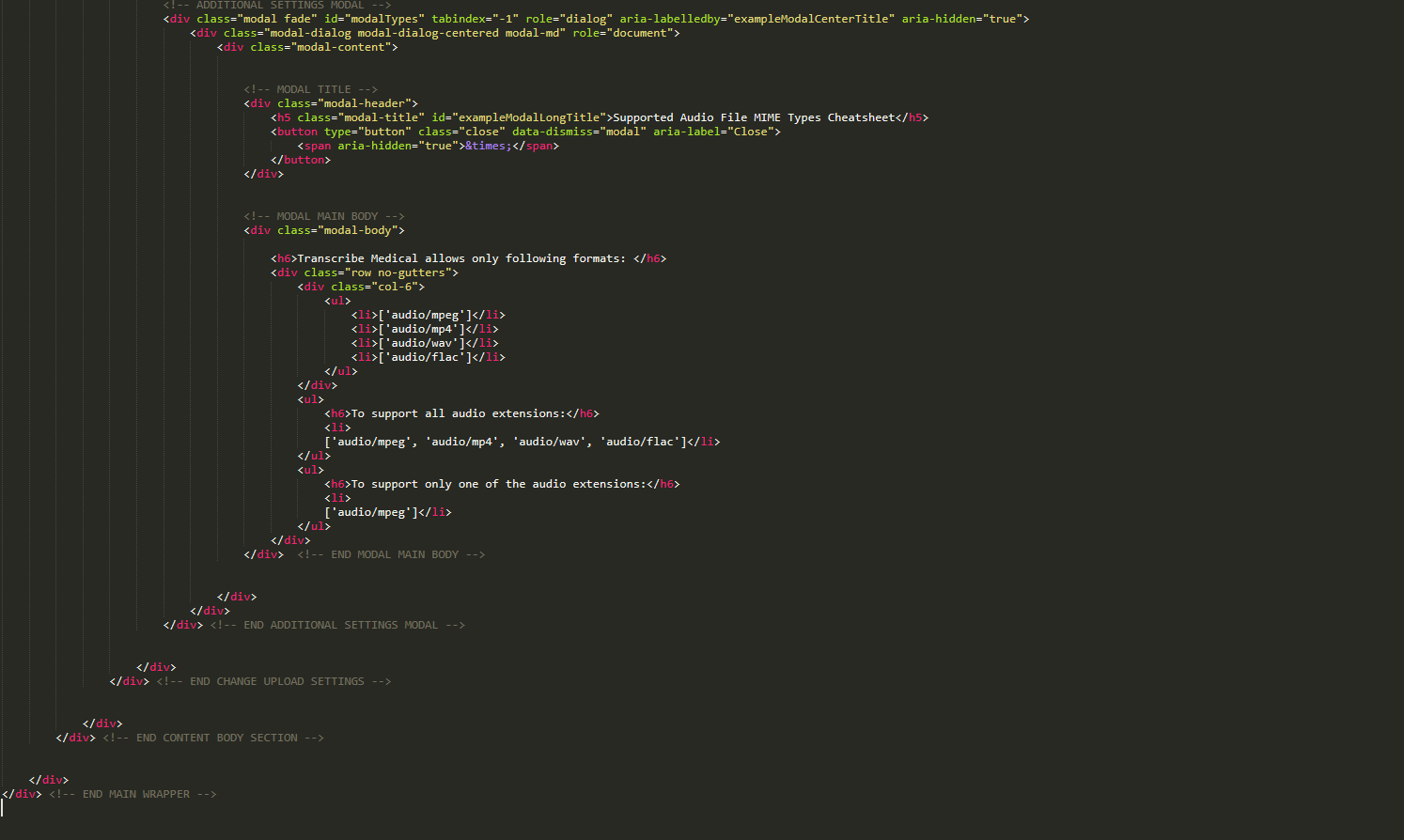
Profile setting

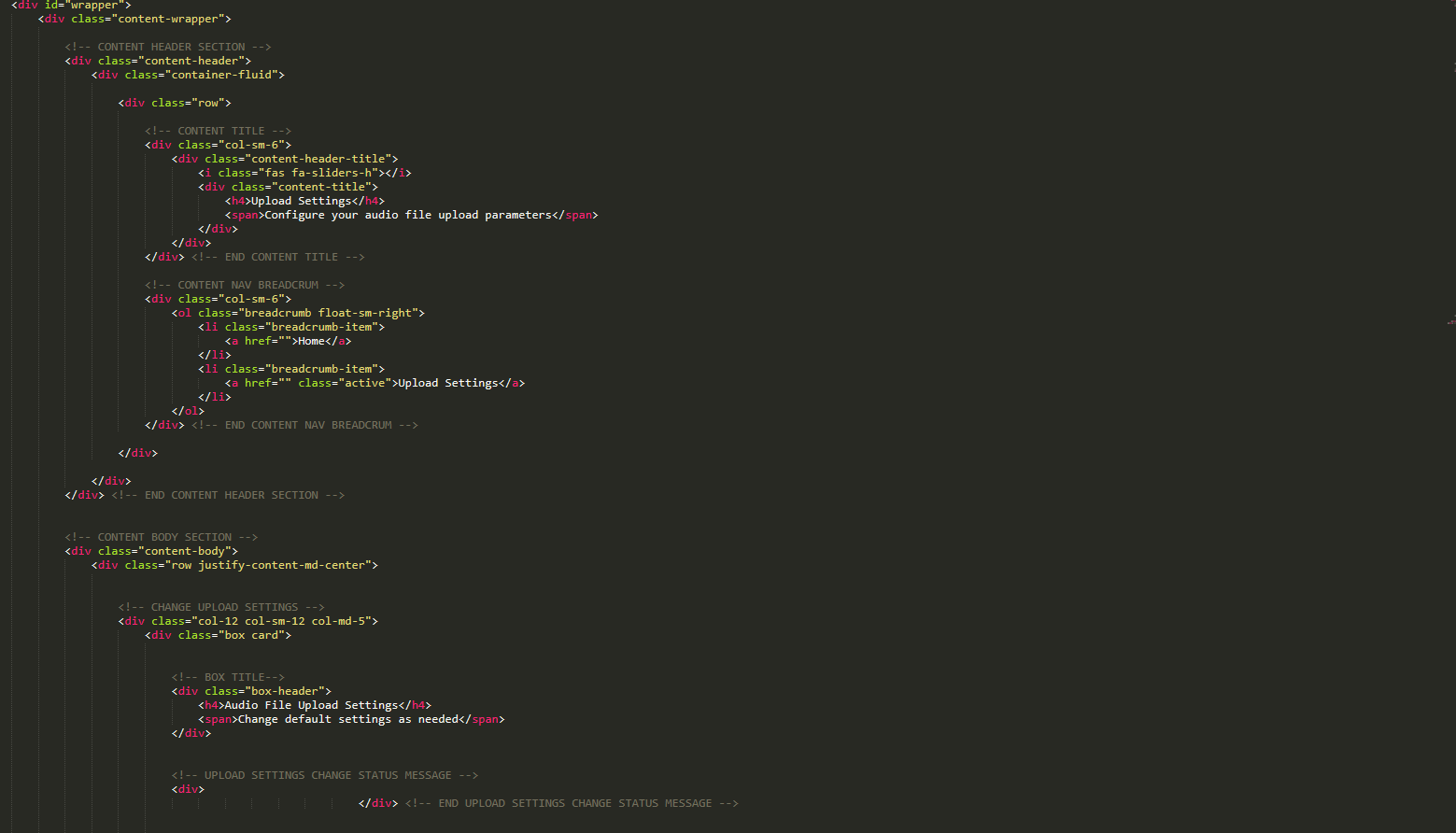


SAMPLE CODE SCRENSHOT









CONCLUSION

As we can conclude that the Amazon Transcribe Medical is an reliable software which accurately transmit the medical terminologies automatically.it also manage or reduce the work of medical transcriptionist. It also provide easy maintains and security and privacy. Also it provide efficient utilization of time.