

Title:

Survey Builder for IIT Empirical Researchers

Project Report

Team - Pandavas

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GitHub Link:

<https://github.com/lakshmanpadigala/Survey-Builder-for-IIT-Empirical-Researchers>

Video Link:

<https://drive.google.com/file/d/1BssIDY4i3PZ6ObU4gRnbLVMNyiX3HaNs/view?usp=sharing>

Project Information

The objective of this project is to design a web application that can be used to conduct surveys for Empirical Researches by creating forms. Empirical Researchers can collect responses by creating forms in the required format by adding different types of questions like Text based question, Multiple choice Questions and Likert

scale. The second part of the project is to enable the user to upload an audio file and generate the transcript for the file.

Requirements & Individual Contribution

S.no.	Requirement Name	Contribution	Owner
1.	Sign Up/Sign In	<ul style="list-style-type: none">- Creation of Login and Sign Up Pages and handling session management of the users.- Responsible for displaying the response data using pie charts	Divit Gupta
2.	Form Creation	<ul style="list-style-type: none">- Generate a form as per survey requirements using provided widgets.- Assisted in the development of the dashboard design	Aditya Sharma
3.	Database	<ul style="list-style-type: none">- Designing of database models and establishing relationships among them.- Configuring flask to connect to the sqlite database- Implementation of ORM framework with SQLAlchemy	Akshay Phate
4.	REST API Creation	<ul style="list-style-type: none">- Development of all the REST API endpoints and managing and processing the HTTP requests from the browser	Padigala Lakshman Sai
5.	Transcript Generation	<ul style="list-style-type: none">- Development of transcript generation feature using speech recognition APIs and integrated with the project	Alok Jain

Softwares Used

- Backend - Flask,Python
- Front End - HTML, CSS, Javascript, Bootstrap
- Database - SQLite
- Version Control - git

Workflow

- A user has to register and log in to be able to create a survey form.
- Once the user logs in, the user is redirected to a dashboard where the user can see his previously created survey forms and its responses.
- The user can create new survey forms by clicking on the create survey button.
- Once the user starts creating a form, the user is asked to enter information such as survey name.
- While creating survey questions, he has options to choose the question type which include text based, multiple choice including a likert scale.
- After choosing a question, the user has the ability to make the question mandatory to answer or not.
- After adding all the questions, the user submits the survey and generates the survey form link.
- Using the link generated, the user can collect the responses for the survey form created.
- The responses collected from people will be populated in the database and the survey creator will be able to see the responses collected from the dashboard.
- From the dashboard the user has a privilege to upload an audio file and download a transcript of the file uploaded audio in .txt format.

Conclusion

We have developed a web application that can enable the Empirical researchers to conduct surveys and maintain responses in an effective manner.

References

- <https://flask-login.readthedocs.io/en/latest/#remember-me>
- <https://flask-sqlalchemy.palletsprojects.com/en/2.x/>
- <https://flask.palletsprojects.com/en/2.0.x/>
- <https://flask.palletsprojects.com/en/2.0.x/templating/>
- <https://stackoverflow.com/>
- <https://www.w3schools.com/>