Project Proposal
2/19/2021
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•Problem statement.
The Trenton library data on Trentoniana is in audio forms on archive.org and is not organized. The data is not user friendly with no transcripts for the files and it is difficult to search for a specific audio file. Additionally, some of the audio files are lengthy and a user is unable to search for a specific part of the file. These files should be accessible in an organized manner and open to the public to easily gain the material for simple and efficient use.

•Objective of the module.
Our goal is to create a database that makes the information from Trentoniana easily accessible to the public. We will use the transcripts and metadata provided to create the information in the database. The database will make it quick and easy for users to find what they are looking for.

•Description of the desired end product, and the part you will develop for this class.
The desired end product will be a fully functional database that users can easily use. We will need to store all of the information in the database and create a user friendly interface for them to easily access their desired information.

•Description of the importance and need for the module, and how it addresses the problem.
It is important to preserve history and make it accessible to people. The purpose of the website is to preserve information and make it available for people to visit in order to learn more. The interviews are stored as audio recording so the preservation part is covered, but they are not easily accessible or usable. If they are not easily accessible people will not be as willing to learn about the information in the recordings. The database will make it easier for people to access the information and the transcripts will provide an easy way to browse the recordings.

•Plan for how you will research the problem domain and obtain the data needed.
We will have to learn about databases to implement our database. We will also need to learn about user interfaces. We will need to learn how to make them easily usable and appealing to the user. To obtain the data for the database we will get it from Archive.org where the audio recordings on Trentoniana are stored. We will also use the transcripts of the recordings in the database.

•Other similar systems/ approaches that exist, and how your module is different or will add to the existing system.
There are many databases available that store historical information. TCNJ library has a list of databases that students have access to that store different kinds of scholarly information. Students use them to research specific topics in class to write research papers. We can look at them from the user side to see what they do successfully and what parts could be improved upon and use this insight into constructing our database.

•Possible other applications of the system(how it could be modified and reused.)
Once the database is made it can be used for any similar information to be stored. It can also be modified to work with the new information with labels being specific for it. An example application would be for music. The database would store the songs as audio files and can include info on the date, singer, and would also have the transcript that has the lyrics.

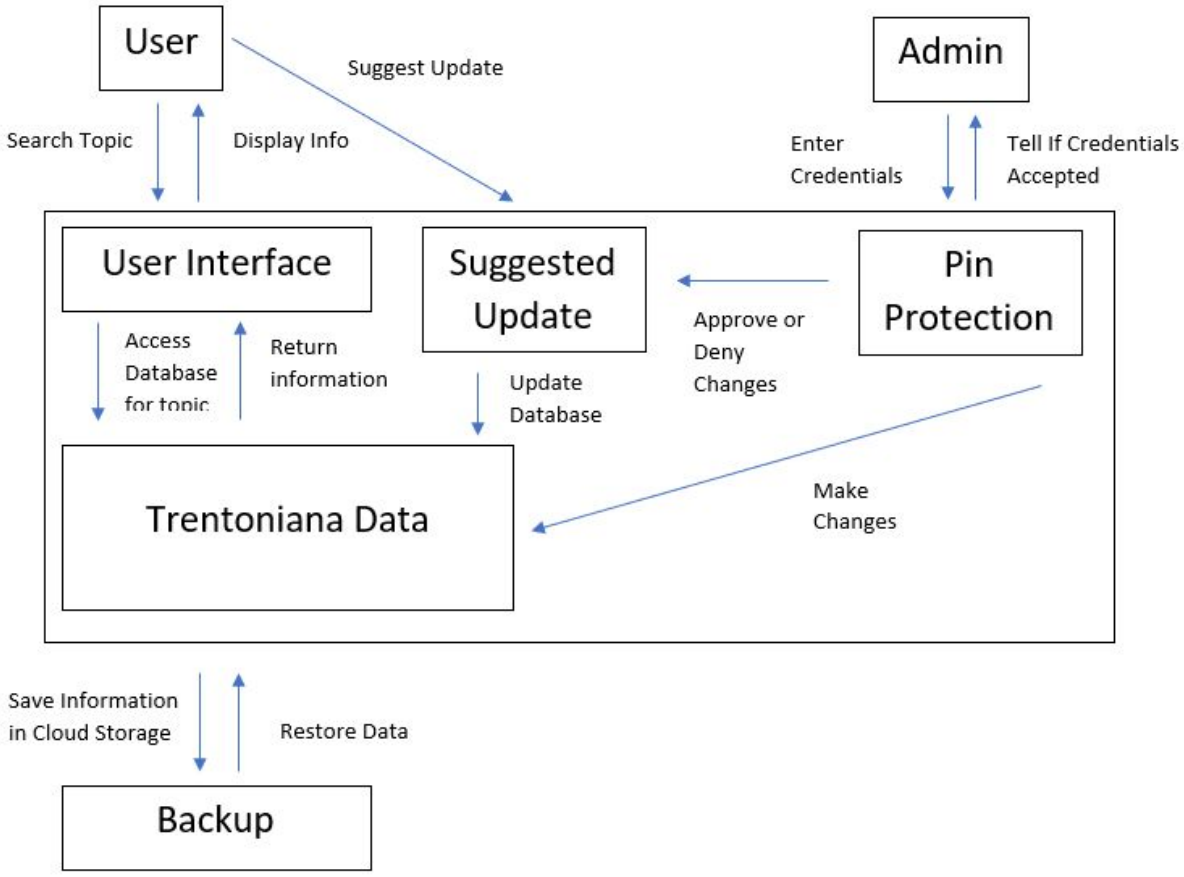
•Performance –specify how and to what extent you will address this.
Careful research and understanding of sorting algorithms to make accessing as time efficient as possible on the user end. Search algorithms will also be used to make searching the database for a specific entry easier.

•Security –specify how and to what extent you will provide security features.
Restrict uploading unless a specific pin is used. This makes it so only trusted users can modify the information in the database. Users can suggest changes to transcripts if they find a mistake but an administrator is required to approve the changes. This prevents false information from being added to the database.

•Backup and recovery –specify how and to what extent you will implement this. Up to date
Cloud backups will preserve the information stored on the database. If something happens, the information will be kept safe. Additionally, older versions of files can be kept for a short period in case something happens to the newer versions and an older version can be used to restore the information.

•Technologies and database concepts the team will need to learn, and a plan for learning these.
Technologies and database concepts our team will need to learn and become familiar with are working with and implementing databases. We will also need to learn the programming language required to complete the project. We will also need a deeper understanding of Git. The Implementation of a pin security feature as proposed and to become familiar working with the cloud to ensure a backup of the database exists.

•A diagrammatic representation of the system boundary that specifies what data you will model and which queries you will implement.



•1-page quad chart; see: Quad_instructions_template.pptin the Canvas files section

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# Trentoniana Database

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**Need**

- A Database to store the information on Trentoniana because it is currently stored on Archive.org and hard to find the information
- A user interface that is easy to use to people looking into the topic can find the specific information that they need
- Transcripts of the audio recordings will make it easier for people to read and use the information in the recordings
- History needs to be preserved for people to learn about it and needs to be easily accessible and usable

**Approach**

- We will create a database to store the information and preserve it
- We will create a user interface so users can easily find what they are looking for based on their search making it easier to find an exact file
- There will be a way for users to provide feedback on errors in transcripts and information to improve the information on the database

**Benefit**

- The new database will make it easier for users to find information on Trentoniana through a search system
- The information is already persevered through the audio recordings, but the database will also provide transcripts
- The database will provide a backup of transcripts and the audio recordings
- This will make it easier for people to learn about Trentoniana and preserve its history

**Competition**

- The only other database that has information on Trentoniana is Archive.org
- They only provide the audio recordings and minimal metadata info
- Without transcripts, it is hard to find a specific part of the recording because they are lengthy
- Archive only has the recordings listed and no way to search for a specific one
- Other databases like the Schomburg center save digital information on black culture. It preserves photographs, literature, and more

02/19/21